

ORDER7/1/85 ✓
3000.10A

AIRWAY FACILITIES MAINTENANCE TECHNICAL TRAINING PROGRAM

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May 8, 1985

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Initiated By: APM-110

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CHANGE

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

3000.10A CHG 1

2/11/88

SUBJ: AIRWAY FACILITIES MAINTENANCE TECHNICAL TRAINING PROGRAM

1. PURPOSE. This change transmits a new Appendix 1, Training Progression Charts.
2. EXPLANATION OF CHANGES. This change is added to update and clarify the Training Progression Charts for Airway Facilities personnel. It includes new course numbers and titles and clarifies technician progression requirements and training prerequisites. It provides training guidance to Airway Facilities supervisors and technicians.
3. DISPOSITION OF TRANSMITTAL. This transmittal sheet shall be retained after changed pages are filed with the basic directive.

PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
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APPENDIX 1 1 thru 29	5/8/85	APPENDIX 1 1 thru 26	2/11/88

Em Kelly

for Arnold Aquilano
Director, Systems
Maintenance Service

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FOREWORD

This order provides supplementary guidance and procedures for planning, conducting, and administering the Airway Facilities technical training program. In addition, it delineates the responsibilities for the management of the program and related activities. It is to be used in conjunction with Order 3000.6B, Training, which specified the agency training policies.

This directive supersedes Order 3000.10, Airway Facilities Maintenance Technical Training Handbook, dated November 12, 1968. Regions may supplement this order with more specific guidelines and instructions to provide for special regional conditions.



Martin T. Pozesky
Director, Program Engineering
and Maintenance Service

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CHAPTER 1. GENERAL

1. PURPOSE. This order provides supplementary training program guidelines and procedures for implementing the technical training program for the Airway Facilities technical work force. The guidance provided herein complements agency guidelines contained in Order 3000.6B, Training.
2. DISTRIBUTION. This order is distributed to branch level in the Program Engineering and Maintenance Service and to division level in the Office of Personnel and Training in : Washington headquarters; to section level in the regional Airway Facilities and Personnel Management divisions; to branch level at the FAA Academy and Administrative Services Branch, AAC-64, at the Mike Monroney Aeronautical Center; and a standard distribution to all Airway Facilities sectors, sector field offices and sector field office units.
3. CANCELLATION. Order 3000.10, Airway Facilities Maintenance Technical Training Handbook, dated November 12, 1968, is canceled.
4. BACKGROUND.
 - a. Since the inception of the FAA, we have had a technical training program designed to ensure that our technical work force was qualified to minimize disruptions of service to the user. To accomplish this, we conducted principle courses to ensure that each technician met minimum qualifications, and equipment courses that instructed the technician on the purpose of each component in the equipment. With this training, and the experience obtained by working on the equipment, we decreased the number of outages with an intensive preventive maintenance program, and decreased the time of outages because of the technician's expertise in restoring facilities when they did fail. This required all facilities to be visited on a regularly scheduled basis to detect and correct deteriorating performance, and to certify that the facility is providing reliable service to the user. This has led to a labor intensive system that is not necessary with the improved reliability of solid-state equipment.
 - b. Increasing Air Traffic activity and user demands have pointed to the need to modernize the air traffic control system. This is being accomplished through the National Airspace System (NAS) plan. Over the next several years we will be getting new equipment that encompass the technological advances in electronics which points toward a complex future for the technician. Rapid technical changes, coupled with the need to provide added public service at reduced overall cost, has necessitated a review and reassessment of the training required to meet the new concepts of operation and maintenance of the facilities to support the NAS. We must ensure that we have qualified technicians available to assume maintenance responsibility for new equipment upon delivery and that qualified technicians are available to maintain the old facilities as long as they remain in the inventory. We must have a proficiency/refresher training program to ensure retention of proficiency and a training plan for replacements to our technical work force that meet the same high standards of qualifications that has prepared our present journeyman technician to meet the challenge of the new technological advancements.
 - c. The new maintenance plan is based on the concept that the increasing number of facilities and services would not require proportionate increases in maintenance resources. The proposed organizational changes will require individuals to solve more difficult and complex problems. The training program is directly related to the needs

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of the maintenance organization. By use of a building block training concept and newer methods of training, training can be specifically tailored for the level and depth required, thereby eliminating duplication in course material while developing the technician's skills. Newer methods will also allow for required refresher training to be conducted at the technician's home station.

5. EXPLANATION OF CHANGES. This order has been revised and updated to delete duplication of information and material already contained in Order 3000.6B. Additional guidance has been provided on the use of multimedia training, field training, and on the determination and priorities of training requirements.

6. DEFINITIONS. For the purposes of this directive, the following definitions apply:

a. Airway Facilities Maintenance Personnel. Regional and sector employees responsible for, or engaged in, day-to-day maintenance, maintenance evaluation, and associated program management of equipment, systems, and facilities used directly or indirectly in air navigation and/or the control of air traffic.

b. Correspondence Study (CS). A general term used to describe self-development training presented through correspondence. This was formerly referred to as directed study (ds). It may be an independent course or part of an integrated course. When used as part of an integrated course it is broad in nature and covers such introductory items as: system principles, concepts, terminology, and definitions. It should be designed to complement on-the-job training, phase I (OJT-I) and prepare students for a smooth transition into follow-on training.

c. Integrated Training Program. An integrated training program consists of as many or as few modes of training as necessary to develop proficiency on a specific equipment or system.

d. Field Training. Technical training conducted and administered in the field, region, center or sector level.

e. On-the-Job Training. That training conducted onsite by an assigned supervisor/trainer with the trainee having the opportunity to learn by doing.

f. Prerequisite Validation Examinations: Prerequisite validation examinations are designed to screen students for entrance into formal programs of instruction. In many cases, the same examination will be prescribed for entrance into several training courses.

g. Equivalency Examinations. Equivalency examinations are designed to allow individuals to demonstrate equivalent knowledge that may have been obtained through various educational methods.

7. FORMS. FAA Form 3000-14 (1/84), Airway Facilities Training Plan, is available. The form is stocked in the FAA Depot and will be available through normal channels. NSN: 0052-00-888-4000, unit of issue: sheet.

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8. **OBJECTIVE.** The objectives of this order are to:

a. Provide guidance for establishing requirements for initial training on new equipment to ensure that qualified technicians are available to assume maintenance responsibility when the equipment is installed.

b. Establish an orderly progression of training for personnel included in the Airway Facilities maintenance and installation program.

c. Assist supervisors in determining and documenting their employees' individual training plans.

d. Establish more flexibility in training by permitting qualified employees to bypass any phase of training when equivalent knowledge and skill can be demonstrated or verified.

e. Establish uniform requirements for minimum knowledge and skill levels prior to entrance into any phase of training, thereby increasing the probability of success.

f. Provide a means for conducting proficiency/refresher training to the technician to ensure he/she retains the required expertise throughout the life cycle of the equipment.

g. Facilitate Airway Facilities technical training program record keeping.

h. Complement and support the Airway Facilities personnel certification program.

i. Provide a method and criteria for developing and evaluating training requirements.

j. Provide a systematic training evaluation process.

9. **THE TRAINING PHILOSOPHY.** The Airway Facilities technical training program shall be conducted in a manner that allows technical personnel to develop the necessary knowledge and skills to the depth and scope commensurate with the current facility maintenance concept. The training shall make use of the various modes of instructions, such as: on-the-job training, correspondence study, resident training (in/out agency), field conducted, Computer Based Instruction (CBI), etc. The method of choice shall provide the most effective and efficient training by maintaining the highest standards of training implementation possible, thus promoting the development of maximum proficiency.

10. **TECHNICAL TRAINING FOR SUPERVISORS.** Supervisory and management employees are required to acquire knowledge and skill on various systems and equipment under their supervision. OJT and course related correspondence material can, and in most cases, should be used to provide such knowledge and skill. However, resident trained, Computer Based Instruction (CBI), or field conducted training may be used to acquire the knowledge and skills required.

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CHAPTER 2. DETERMINATION OF TRAINING REQUIREMENTS

11. GENERAL. This chapter provides guidance and criteria to assist supervisors in determining training requirements.

a. Program Planning. Because of the various types of equipment reliability/availability requirements and the expected life cycle of all equipment required to support the NAS plan, the FAA must continue to assure that the necessary training is available for the operation and maintenance of this equipment. To ensure the work force can meet the requirements of maintaining the new equipment, as well as the old equipment, we must provide the following types of training.

(1) Initial Training.

(a) To ensure qualified technicians are available to meet the delivery schedule, a large number of technicians are required to be trained in a relatively short period of time. To meet this requirement usually one of the first systems delivered will be dedicated to training. This system can be at the FAA Academy or at the vendor's facility. The contractor usually will develop and conduct the first several courses to train FAA Academy instructors, technicians for first installations, and other support personnel. This training package would be classroom lecture/lab or in a form amenable to field delivery.

(b) When sufficient classroom lecture/lab classes have been conducted to meet our initial training requirements, a decision would be made to the application of the equipment to field delivered training. If the system will allow conduct of hands on training without interfering with the operational capability the Academy would then develop the course material into a package suitable for field conduct. The package can be in the form of correspondence, or CBI, for the theory and an on-the-job training (OJT) manual to cover the hands on training required. When this field course has been developed, authenticated, and distributed the dedicated training facility can be removed, refurbished, and deployed to an operational facility. If the training cannot be accomplished without interfering with operational capability, the system must remain dedicated to training for the life cycle of the equipment.

(2) Attrition Training. Where practical, all new equipment courses will be developed for the theory package to be delivered in the field. With the initial training provided to the technicians, and the practical experience these technicians will have received from working on the equipment, they should prove invaluable in providing assistance to any replacement personnel being trained at the facility. With a standard training package developed by the FAA Academy and trained, experienced technicians available to assist, this field training should be of a quality our technicians have grown to expect. These new equipment that will allow hands on training without interfering with the operational capability will have all attrition training accomplished in the field. If the equipment does not meet this qualification, hands on training will have to be conducted on a system dedicated to training.

(3) Proficiency Training. A proficiency/refresher training program has been nonexistent in the past. With the increase in reliability of our equipment there has been less opportunity for our technicians to maintain their proficiency through actual work on the equipment. This problem has been studied for over 10 years but the problem was never considered severe enough to obligate funds for a proficiency/refresher training program. With the agency moving toward total solid-state equipment, with much higher reliability

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anticipated, we must now take some positive action to ensure that the proficiency of the technician is maintained. We intend to accomplish this through the use of a modular design of our field packages. The Computer Based Instruction (CBI) lends itself well to accomplish this type training. With computer assisted instruction (CAI), simulating actual equipment operations, we can effectively use this methodology for proficiency training. On those facilities that do not qualify for CBI methodology we must develop a hands on training package to be used at a central training facility for our proficiency training.

(4) Predevelopmental/Developmental Training. To ensure that the replacement personnel are of the same high quality of our present technicians we have developed a list of standard courses, presently available or proposed, that all new technicians must complete or bypass by demonstrating prior knowledge (see appendix 1, figure 1). These standard courses are presently available, or are being developed, as correspondence study or CBI courses. With this methodology we will provide the necessary training at a much lower cost.

b. The supervisors will recommend, and the Airway Facilities sector manager will approve, the training requirements for each position under his/her supervision. In determining training requirements, supervisors must consider these factors:

- (1) The current maintenance philosophy.
- (2) The maintenance organization.
- (3) Workload and staffing requirements
 - (a) Facility operational requirements.
 - (b) Scheduled commissioning of new systems and equipment.
 - (c) Leave schedules, emergency call-back coverage, and watchstanding duties.
 - (d) Employee mobility (promotions, transfers, resignations, etc.).
 - (e) Employee career development.

12. DETERMINATION OF NUMBER OF PERSONNEL TO BE TRAINED.

a. Initially. Initial requirements for new equipment will be determined by the Maintenance Engineering Division, APM-100, based upon appropriate maintenance/organizational considerations.

b. Follow-on. The follow on requirements will be determined by the region and/or sector based on the minimum number required to support current maintenance philosophy and operational needs.

c. Training Quota Standards. Reserved.

13. SELECTION OF METHOD OF TRAINING. FAA technical training is provided through a mix of resident training, Computer Based Instruction (CBI), correspondence courses, field training, on-the-job training, contract training with other Government agencies, industry, and technical/academic institutions.

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a. Supervisors shall investigate the various resources available and recommend to the sector manager that training which best suits the needs of their employees consistent with the most judicious use of the total resources (i.e., manpower, travel time, work load demand, etc.). Emphasis should be placed on that method or combination of methods which produces the maximum effectiveness.

b. Training for cross specialization shall be provided only when required to meet valid operational objectives, and where the new skills acquired by the employee will be used frequently enough to retain proficiency.

14.-19 RESERVED.

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CHAPTER 3. REPORTING AND PROGRAMMING NUMERICAL REQUIREMENTS

20. GENERAL. The FAA conducts an annual fiscal year call for training requirements. Each fall the Training Programs Division, APT-300, issues a notice which gives specific guidance for the training requirements. These requirements are reviewed by the regions and further reviewed by APT-300 and APM-100 in conjunction with the training organizations. When the various programs have been finalized, training program objectives are established and entered into the Consolidated Personnel Management Information Subsystem (CPMIS) by APT-300 for the regions information and use by the training organizations.

21. PROCEDURE.

a. All centralized technical training requirements are to be reported through the CPMIS.

b. To assist in the review and analysis of training requirements in all AF training courses, categories of training and a priority sequence have been developed to show the distribution of requirements. The categories and priority sequence are described in the call for training requirements issued each year.

c. Supervisor Worksheets. Each year forms are generated, printed, and mailed to all regions by AAC-300. This form, the training requirements-course enrollment request, shows the names and social security numbers of all people in each cost center. Space is provided for up to three course numbers for each person. Each requirement is further identified by the category, priority (if required) and quarter in which it is requested. Spaces are provided for any courses which are needed for vacancies in each cost center. These forms are to be filled out by every first level supervisor and concurred by the second level supervisor. The sector manager shall have approval authority of training requirements for Airway Facilities sector personnel.

22.-24. RESERVED.

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CHAPTER 4. AIRWAY FACILITIES TRAINING PLAN, PROGRESSION, AND STANDARDS

25. GENERAL.

a. The Airway Facilities technical workload falls into five career specialities.

These are:

- (1) Communications.
- (2) Data/Automation
- (3) Environmental Support/Maintenance Mechanic.
- (4) Navigational Aids.
- (5) Radar.

b. The agency training program for Airway Facilities personnel includes a comprehensive pattern of development in each of these career specialities, or in a combination of two or more, as required by organizational and work demands.

26. TRAINING PLAN.

a. Supervisors shall develop a written training plan for each employee requiring training. This plan will identify the training goal and the courses or methods to be employed in obtaining this goal. The training plan will include, but not be limited to, correspondence study, on-the-job training and formal training. Each item should be sequenced according to a timetable, and a proposed date for completing each phase shall be included.

b. Training plans will be developed using criteria established in paragraph 11b. Additionally, the training plan will be reviewed with the employee at least annually and updated as required. This review shall be documented on the training plan by having both the supervisor and employee date and initial the form. (See appendix 2.)

c. Examples of training plans for various career fields are included in appendix 2. These plans are to be tailored to each individual's job requirements with the specific course of study determined from progress charts in appendix 1.

27. TRAINING PROGRESSION. Satisfactory training progress is required of both new employees or employees currently in established work load positions.

a. New employees will be counseled as soon as they enter on duty to ensure they understand that continued employment is contingent upon satisfactory completion of the training program as outlined at the time of employment.

b. Current employees. Employees presently in positions requiring new or additional training, whether for certification, prerequisite satisfaction or performance improvement, shall complete this training on or before the date specified in the training plan.

c. Progress will be considered unsatisfactory under the following circumstances:

- (1) Failure to successfully complete a required correspondence study course in two attempts.
- (2) Failure to successfully complete a required resident training course.
- (3) Failure to successfully complete required field conducted or field administered training.
- (4) Failure to meet the time limits established in the training plan. The time limits specified in this plan may be extended by the sector manager if completion is prevented by circumstances beyond the control of the employee.

d. Supervisors shall monitor accomplishments of employees enrolled in training and shall determine the reason for any lack of progress, counsel employees on requirements for timely completion, and recommend to the sector manager if employees should be withdrawn or continue in training.

e. Personnel who fail a course or are withdrawn from training, will be provided a makeup program. Failure to successfully complete the makeup program or unsatisfactory progress may subject the employee to reassignment, reduction in grade or separation.

28. TRAINING STANDARDS.

a. Journeyman level technicians must be capable of analyzing the entire system and diagnosing any fault which may occur in the system down to the lowest level of onsite repair. (The present level of repair is to the component level on single layer boards and the module or board level on multilayer boards.)

b. It takes more than formal training to develop a fully effective journeyman technician. He/she will also require considerable experience on the system before he/she can attain the desired level of performance and efficiency.

c. All AF technical training shall be designed to aid the journeyman in obtaining this level of competence in minimum time.

d. The scope of any AF technical course should encompass all component parts of the system, associated ancillary equipment, diagnostics, system and subsystem concepts, interfaces, and troubleshooting.

e. The depth of training will be sufficient to meet the knowledge level requirements of the journeyman.

f. The methodology used to conduct this training will be that which meets the scope and depth requirements in the most effective manner.

g. The numbers of personnel required to receive this training should be the minimum number required to support the current maintenance philosophy.

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CHAPTER 5. AIRWAY FACILITIES TECHNICAL TRAINING COURSE DEVELOPMENT

32. **GENERAL.** This chapter describes the procedures, policy, criteria, and guidance for the submission of training proposals and for the approval of training development plans. The process is designed to be responsive to established Airway Facilities (AF) requirements.

33. **RESPONSIBILITIES.** Although functional responsibilities are delineated in various agency orders, the following specific responsibilities are provided to form the basis for a common understanding of the manpower and training process associated with new equipment.

a. Program Engineering and Maintenance Service.

(1) Program Managers should:

(a) Provide for a system maintenance plan. The plan will describe how the new system will be maintained and the anticipated level of involvement by the field, FAA Depot, and National Field Support Sectors. This plan will be coordinated with the Maintenance Engineering Division, APM-100 to ensure that all manpower and training requirements are identified.

(b) Ensure that the contracting officer is aware that APT-300 is to submit the training option to the purchase request, when appropriate.

(c) Coordinate maintenance technical handbooks with the Maintenance Engineering Division, APM-100 to ensure appropriate certification requirements are established and work (certification) responsibilities are assigned.

(d) Ensure that contract documents provide for equipment dedicated to training including all ancillary equipment, such as test equipment and special tools, in sufficient quantity and time to ensure that trained personnel will be available to meet the delivery schedule.

(2) Maintenance Operations Program, APM-110 should:

(a) Prepare and/or review and approve agencywide Airway Facilities training proposals prior to submission to the Office of Personnel and Training (APT).

(b) Review and approve, in conjunction with the APT training development plans prepared in response to training proposals.

(c) Serve as the interface between the program manager and the Office of Personnel and Training for all manpower and training matters including training equipment.

(d) Serve as the interface between the program manager and the regions/field for all manpower and training matters.

b. The regions shall develop and submit training proposals to the Program Engineering and Maintenance Service, which are designed to solve identified problems or improve the efficiency of maintenance and/or installation operations. Those proposals will satisfy the criteria identified in Order 3000.6B.

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c. The Office of Personnel and Training should:

- (1) Develop training specifications and options for use in the procurement process.
- (2) Fund for contractor development and/or conduct of training when not otherwise funded.
- (3) Serve as the interface between the manpower and training project manager (APM-110) and the FAA Academy.
- (4) Ensure the development of training development plans in response to the training proposals and shall submit the plans to the Program Engineering and Maintenance Service for further coordination. The technical content and accuracy of such plans shall be approved by the Program Engineering and Maintenance Service prior to development of course materials. The Office of Personnel and Training shall approve the training development plan on the basis of its adequacy as a professional training document.

d. The FAA Academy shall ensure that effective and efficient utilization of resources is maintained and the need for major revision of contractor-developed training courses is precluded. In order for the FAA Academy to satisfy this requirement, it is necessary for them to be involved during the entire procurement cycle and the following criteria shall apply:

- (1) It shall be the responsibility of the Office of Personnel and Training (APT-300) to notify the Superintendent, FAA Academy (AAC-940), when a new program requires the appointment of an Academy contracting officers technical representative (COTR). The COTR shall have the appropriate background, experience, and knowledge to evaluate contract line items associated with the contract. The FAA Academy shall notify APT-300 of the COTR designees.
- (2) The COTR shall participate in the writing of the training portion of the equipment specification for major procurements to the extent that those items addressing training shall conform to agency standards, as contained in Order 3000.6B, change 2.
- (3) The training method shall be determined by APT-300 after coordination with the FAA Academy. When pre-award negotiation with prospective contractors take place, the COTR shall participate and provide written technical training advice and recommendations to the contracting officer (CO). Such advice and recommendations shall conform to the requirements of the appropriate specification.
- (4) After consultation with the FAA Academy and APM-110, APT-300 shall assure the inclusion of sufficient equipment in the contract for training purposes. Equipment types and quantities shall be based upon the projected field training requirements for the initial training phase, as well as attrition training. The training systems shall be located at the FAA Academy unless otherwise determined by APT-300 and AAC-900 coordination.
- (5) The COTR shall ensure that contractor submissions of training documents and material conform with agency training standards. The COTR shall also analyze for conformity with contract requirements and forward comments and recommendations to the contractor through the CO.

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(6) The COTR shall monitor the conduct of training provided by a contractor in order to ensure the accuracy and content of the course. Academy assumption of course responsibility will be based on the quality of the course as established through this final phase of quality control.

34. TRAINING PROPOSALS. Training proposals shall be submitted in accordance with Order 3000.6B. The training proposal defines the scope and level of each training course to meet the requirements of the tasks to be performed. The proposal is based on one or more of the following: equipment specifications, engineering requirements, manufacturer proposals, design data, instruction books, maintenance plan or concept, technical handbook or procedures, job task analysis. The degree of detail of the proposal will depend upon the available information at the time of submission. Proposals on new systems ordinarily will not be coordinated with regions since the proposal is usually written before information on the system is available to the field.

35. KNOWLEDGE AND SKILL LEVELS. Order 3000.6B specifies knowledge and skill levels that are to be used in the initiation, planning, development, conducting, or evaluation of a course.

36. GUIDELINES FOR DEVELOPMENT AND CONDUCT OF THE TRAINING.

a. Journeyman Level. The course developer should design the course to provide the knowledge and skill levels necessary to perform at the journeyman level in the maintenance of electronic or electromechanical systems.

(1) A journeyman must be capable of analyzing the entire system and diagnosing any fault in the system or any unit or component of any unit. It is impossible to cover all contingencies in a training course so it is necessary to impart a high degree of knowledge of logical functions to enable the employee to solve the unique as well as the more routine problems. The understanding required is best indicated by diagnostic application of that knowledge.

(2) It takes more than training to develop a fully effective journeyman. Therefore, the highest level or order of skill indicated for the training program is not the ultimate goal in the development of the journeyman, but is that required to bring the employee to the level of competence necessary to take the certification performance examination. Only a thorough training program followed by considerable experience on the system can provide the desired level of performance and efficiency.

b. Criteria.

(1) All system/subsystem measurements, techniques, and adjustment procedures should be compatible with those the trainee will use under actual operating conditions upon his return to the field environment. Procedures found in national handbooks or other authorized instructions shall be used when possible. Where no authorized instructions exist, or a deviation from approved procedures is desirable, course developers shall coordinate with the Program Engineering and Maintenance Service before putting instructional material into final form.

(2) Every effort shall be made to include in any course, all significant maintenance (or installation, if applicable) procedures that will be performed on the system.

(3) The course shall be designed to develop the student's ability to recognize system deficiencies, isolate faults, and correct problems.

(4) Every effort shall be made to simulate the operating environment.

(5) The course shall be included in the evaluation process described in this order as well as that in Order 3000.6B. If a significant number of students fail to complete the course successfully, the course should be evaluated as to the student entrance level, prerequisites, course content, etc.

(6) Changes in course content, training methodology or length as described in the proposal or a training development plan that has been approved by the Program Engineering and Maintenance Service shall be coordinated with that service.

(7) Organizational elements proposing, developing, and/or conducting an AF training course shall be familiar with the AF personnel certification program.

(8) Correspondence study and resident training shall be developed, conducted, and/or arranged for by the FAA Academy and/or APT-300.

(9) On-the-job training courses are to be developed by the FAA Academy and/or AF personnel, and conducted by AF personnel in accordance with the provisions of this order.

37. TRAINING METHODS. Each method of training has clear and distinctive purposes. The method that can produce the most effective results should be used in each phase of training. Order 3000.6B contains detailed discussions on the various methods of training and Order 3020.1, Use of Computer Based Instruction covers CBI. The following supplements the information in Order 3000.6B.

a. Correspondence Study (CS). When used as prerequisite training or part of an integrated training program, this portion of the training shall be general in nature and include material that can be taught effectively by correspondence. It will cover items such as: system principles, concepts, terminology, and definitions. Integrated CS courses should be designed to complement OJT-I, if this method is also being used. When CS and OJT-I are both available for a training course, they should be accomplished concurrently. Every effort should be made to structure CS so that a smooth transition can be made into any subsequent follow-on training portion of an integrated course. If the trainee is preparing for follow-on training or if the trainee desires credit and a course completion certificate, the CS shall be followed by a supervised final examination.

b. On-the-Job Training, Phase I (OJT-I). This portion of an integrated training program generally provides system orientation, and it avoids complex operations. Training shall be structured to cause the trainee to learn by doing. The approach of where it is, what it is, what it does, and how it relates to the rest of the system shall be considered when the material is developed and applied. A means shall be included in the material to allow supervisors to verify that the trainee has completed the lessons or has equivalent ability.

c. Resident Training. This portion of an integrated training program should be highly concentrated study consistent with maximum effectiveness. The training is conducted on a formal basis from an approved lesson plan. It may be conducted at the FAA Academy, onsite at a training facility, or at the contractor's plant.

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d. Field Training. This is training conducted in the field by field personnel of national courses that are approved and/or controlled by the FAA Academy.

e. On-the-Job Training, Phase II (OJT-II). This part of an integrated training program is the application of all that has been learned up to that time. This material shall be designed to develop journeyman skills under actual operating conditions and consists primarily of a repetition of standard procedures, usually in preparation for the certification performance examination. The intent is application of what has been learned.

f. Configurations of these methods are made to obtain the best possible result. The coverage for CS and OJT described here may be expanded when no resident training is available or is not considered desirable.

g. Verification that trainees have completed OJT-I or have equivalent abilities and a passing score on the combination of interim and supervised final examinations are required prior to entrance into the resident phase of an integrated training program.

h. Any combination of the basic methods of training may be used in the development of AF training courses. The factors to be considered in determining which method to use include:

(1) Effectiveness. The foremost consideration in the development of an AF training course is that it must be effective in accomplishing the objectives established by the training proposals.

(2) Efficiency. The distribution of material over the various methods of training shall be accomplished so that for each course maximum overall efficiency, consistent with minimum cost, will be realized.

(3) Feasibility. Although efficiency and effectiveness might indicate that a particular method of training is advantageous for a given phase of training, it may not be feasible to conduct training by that method for practical reasons. These reasons may include undesirable shutdown of a system, lack of equipment to train on, or lack of other training resources.

(4) Cost. The cost of training by various methods must always be considered where the advantages of one method over the other is not apparent and the ratio of time to effectiveness of training warrants cost analysis.

(5) Maintenance Concept. Organizations proposing and developing AF training courses shall be familiar with the maintenance concept involved. The maintenance concept influences both the depth and scope of the course. For example, if it is maintenance policy to exchange and repair a certain component, it may not be necessary to conduct in-depth training on that item and the training course may be correspondingly shorter.

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CHAPTER 6. PREREQUISITES

40. GENERAL. The ability of students to successfully complete advanced and other selected technical training courses is largely determined by the extent to which they have prepared themselves before entering such courses. To determine whether or not a student is prepared, an expected level of knowledge and skills required of the entering student has been established for many Airway Facilities training courses. These prerequisites are identified in the FAA Catalog of Training Courses. Supervisors shall ensure that all personnel assigned to resident training courses have satisfied the prerequisite training requirements.

41. PREREQUISITES. Prerequisites can be satisfied through a number of means. Among them are:

- a. Resident training courses.
- b. Correspondence study courses.
- c. Prerequisite Validation Examinations (PVE).
- d. OJT courses.
- e. CBI courses.
- f. Certification Examinations.

42. RESPONSIBILITIES.

a. The Program Engineering and Maintenance Service shall establish criteria to be used in selecting employees to receive the training. The criteria is based on the previous experience, education, and/or training the prospective enrollees have, or what knowledge or skills they possess.

b. The FAA Academy shall recommend prerequisites for new courses and changes in established course prerequisites.

c. The Office of Personnel and Training jointly with the Program Engineering and Maintenance Service, approves prerequisites for new courses and changes in established course prerequisites.

43. WAIVERS. A waiver procedure has been established, which may be used in case of emergencies, or when the student has acquired equivalent knowledge through some other means (usually prior training outside the FAA). For cases in which the student has acquired equivalent knowledge, request for waivers should be submitted in writing through the regional training program management officer (TPMO) to the superintendent of the FAA Academy for approval. Such request must identify the source of equivalency. Request for waivers dictated by operational necessity should be forwarded, in writing, to the regional Airway Facilities division for approval and forwarding to the FAA Academy by the TPMO. Operational necessity indicates a situation where failure to train the employee now would

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impact upon continued facility maintenance/operation, and requests for waiver should indicate why the prerequisites could not be met. Students who arrive for training and do not meet course prerequisites or have an approved waiver shall be returned to their duty posts.

44.-49. RESERVED.

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CHAPTER 7. FIELD TRAINING

50. GENERAL. This chapter describes the procedures, policy, criteria and guidance for conducting field training whether it be classroom or on-the-job training.

51. FIELD TRAINING. In planning field conducted Airway Facilities technical training, each region should comply strictly with agency policy which provides that the centralized training program (whether within agency or out-of-agency) provided by the FAA Academy shall be utilized to meet major agencywide training requirements. Training courses similar or equal to those courses offered centrally may be conducted only when individually justified and approved. A request for approval will be submitted to the Maintenance Operations Program, APM-110. Justification in support of this training will include:

- a. Title of the Course.
- b. The length of the course, the number of classes per year, and the number of students per class.
- c. The name of the planned instructor and a statement of his/her qualifications.
- d. The location of the training session, (regional headquarter, sector offices, etc.) including assurance of an adequate training facility.
- e. The reasons for holding the course in the region in lieu of centralized training on this particular equipment or function (if such training is available).
- f. All field conducted training classes shall comply with the provisions of Order 3000.6B.

52. ON-THE-JOB TRAINING. Airway Facilities on-the-job training is planned activity conducted at work sites by supervisors or others designated by the sector manager. This type of training provides direct experience in the work environment in which the employee is performing, or will perform, his/her duties.

53. RESPONSIBILITIES. Order 3000.6B delineates the responsibilities of the various segments of the FAA to establish requirements and to develop, conduct, and administer the agency on-the-job training. Airway Facilities on-the-job training shall be conducted in accordance with that order.

54. ON-THE-JOB TRAINING ASSIGNMENTS.

a. OJT instructor/counselor assignments shall be made in accordance with existing Airway Facilities labor agreements.

b. OJT instructor/counselor assignments shall be rotated on an equitable basis among those employees who are selected to perform the work, consistent with the operational and training requirements and taking into consideration the relative skill and knowledge of the participants.

55. COMPUTER BASED INSTRUCTION (CBI). This will be one of the prime methods of conducting training in the field. For information on the use of the CBI system refer to Order 3020.1, Use of Computer Based Instruction.

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CHAPTER 8. USE OF CORRESPONDENCE STUDY

60. GENERAL. This chapter supplements the guidelines provided in Order 3000.6B governing the use of correspondence study courses.

61. OBJECTIVES. In addition to the objectives in Order 3000.6B, correspondence study serves as:

a. An indoctrination device for supervisors and technical managers who do not require an in-depth knowledge or skill level on the system.

b. A review of fundamentals that is essential to success in resident training or to prepare for certification examination or pursuance of an approved career development plan.

62. ENROLLMENT. Enrollment in correspondence study courses shall stem from an identified job deficiency, preparation for resident training, preparation for a certification examination, or pursuance of an approved career development plan.

63. SUPERVISOR'S ROLE.

a. Supervisors have the continuing responsibility to encourage correspondence study activity that will increase employee job-related knowledge and skill. In addition, they are to encourage steady progress leading to course completion.

b. Supervisors shall initiate and/or approve or disapprove enrollment in correspondence study courses based on the employee's training requirements.

c. Supervisors should discourage simultaneous enrollment in more than two courses.

d. Supervisors shall monitor the progress of employees enrolled in CS courses and shall determine the reason for inactivity (trainee submits no examinations beyond 6 months); counsel employees on the requirements for course completion; and decide whether the employee should continue with the course or should be withdrawn.

64. CONCENTRATION OF STUDY. Most correspondence study courses lend themselves to study sessions of from 2 to 4 hours. The nature of the material must be considered in establishing the study schedule so that each session constitutes a reasonable assignment in terms of time and coverage. On-the-job sessions of more than 4 hours per day are discouraged and should be permitted only by mutual agreement between the supervisor and employee.

65. USE OF OFFICIAL DUTY TIME.

a. Order 3000.6B permits heads of services to approve, on a national basis, use of more than 10 hours per month, of official duty time for correspondence study in specific situations. In accordance with these provisions, Airway Facilities supervisors are hereby granted authority, within their areas of jurisdiction, to grant in excess of 10 hours per month, when operational and staffing requirements permit, to employees engaged in correspondence study required as part of an approved career development plan. Official duty time allotted to the student for CS shall be documented by the first line supervisor and, as directed, a copy of the documentation provided to the sector manager.

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b. The FAA Catalog of Training Courses lists the average lengths of time necessary for the completion of the various correspondence study courses. These periods must be taken into consideration in determining training relief and shall be considered when establishing the amount of official duty time the employee may be granted.

66. CORRESPONDENCE STUDY SUPERVISED FINAL EXAMINATIONS. The use of supervised final examinations for correspondence study courses is necessary to validate knowledge when such courses count toward eligibility for resident training or when credit and a certificate are desired.

a. Administration of Supervised Final Examinations. The following procedures shall apply to the administration of any supervised examination:

(1) Each examination must be supervised by an FAA employee designated as examiner by the AF sector manager (or similar authority in the regional office or Washington headquarters). The examiner must be designated in writing. See paragraph 71a(2).

(2) The examiner shall arrange for the examination to be conducted in the most favorable environment possible. The examination should be scheduled during working hours.

(3) The examiner shall ensure strict compliance with all instructions that are furnished with the examination. He/she shall prepare the area to be used for the examination, give the examinee any necessary instructions, control and time the examination as prescribed, and process the examination as instructed.

(4) The contents of the examination shall not be discussed or disclosed by the examiner or examinee.

(5) The AF sector manager is responsible for safeguarding the integrity of all examinations.

b. Reexaminations. In the event of a failure, the student may request a retake of the final examination. The student must make the request in writing to the FAA Academy through his/her supervisor and the AF sector manager and the request may be granted when all of the following conditions are satisfied:

(1) Reexamination must be mutually agreed to by the FAA Academy and the AF sector manager.

(2) Prior to the reexamination, the student must successfully complete any study material that is recommended by the FAA Academy and agreed to by the supervisor and the AF sector manager.

(3) The minimum interval between examinations must be 30 days.

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CHAPTER 9. ADMINISTRATIVE PROCEDURES AND RESPONSIBILITIES

70. GENERAL. This chapter provides guidance and procedures for the planning and execution of Airway Facilities training programs.

71. PROCEDURES. The following procedures apply to the planning and execution of previously approved and funded training programs and assumes that course prerequisites have been satisfied.

a. Assignments involving resident training.

(1) The FAA Academy shall, in preparing and issuing course announcements, stipulate the leadtime necessary to starting any required OJT-I and correspondence study (CS) prior to the start of resident training and establish cutoff dates for completion and assignment to resident training.

(2) In recognition of the leadtimes, the AF sector manager (or similar authority in the regional office or Washington headquarters) shall initiate enrollment by trainee's name and first line or training supervisor's name, title, and mailing address. Designation of the supervisor will automatically delegate authority to administer related supervised examinations. These enrollments are to be forwarded to the FAA Academy.

(3) If correspondence study and OJT-I are involved, the FAA Academy forwards OJT-I with a trainee progress chart, CS with a correspondence study time chart, and all interim lesson examinations, evaluation forms, and correspondence study equivalency notices. The equivalency notice advises the supervisor that if, in his/her opinion, the trainee has the knowledge equivalent to the CS course, the supervisor can immediately request the CS supervised equivalency examination.

(4) The trainee completes OJT-I and CS concurrently.

(5) When the trainee completes OJT-I, the trainee progress chart is completed and forwarded to the AF sector manager who extracts any information desired and forwards to the TPMO for entry into the CPMIS training history.

(6) Upon completing the interim CS lesson examinations, the trainee completes the examination face sheet and the lesson answer sheets. The supervisor returns these to the FAA Academy for grading, recording, and filing.

(7) When the trainee completes the last lesson examination and it is handled as in 71a(6) above, the FAA Academy forwards the supervised final examination, with instructions, to the supervisor. The completed supervised final must be returned within one month. Additional instructions will be included in the supervised final examination transmittal envelope explaining the procedures of administering the examination.

(8) When the trainee completes a supervised final examination or a correspondence study equivalency examination, the supervisor mails the correspondence study time chart to the sector office where information can be extracted if so desired. The supervisor mails the examination and all other associated forms to the FAA Academy. There the examination is graded and recorded. The FAA Academy will issue a certificate of satisfactory completion of CS with a supervised final examination. No certificate will be issued for a CS examination.

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(9) Receipt of a passing grade on the grade reports signifies eligibility for resident training. Upon receipt of such a report, the AF sector manager will make assignments to resident training.

(10) When the trainee successfully completes the resident course, a certificate is issued for satisfactory completion of resident training. Before leaving the class, each trainee enrolled in a course with a formal OJT-II segment receives an OJT-II manual and a trainee progress chart for future use.

(11) The trainee completes OJT-II. The supervisor then completes the trainee progress chart and mails it to the AF sector office. The completion notice is forwarded to the TPMO for entry into the CPMIS.

(12) The FAA Academy issues a course grade report to offices listed in 71a(8) above covering the resident portion of the training.

(13) Satisfactory completion of OJT-II qualifies the trainee to take the certification performance examination, if required.

b. Assignments Not Involving Resident Training.

(1) Should supervisor/employee counselling indicate that OJT and correspondence study will sufficiently prepare the employee for the certification process, supervisors may make application for OJT-I, CS and OJT-II course materials through the AF sector office. The AF sector will forward the application including the name, location, title of both the trainee and his/her first line or training supervisor, and a statement that resident training is not considered necessary for the trainee. It shall be understood that designation of the supervisor automatically delegates authority to administer related supervised examinations.

(2) Upon receiving the application, the FAA Academy forwards OJT-I and OJT-II with the trainee progress charts and CS with the correspondence study time chart and all interim CS lesson examinations to the designated supervisor.

(3) The trainee completes OJT-I and CS concurrently.

(4) When the trainee completes OJT-I, the trainee progress chart is completed and forwarded to the AF sector manager who extracts any information desired. The completion notice is forwarded to the TPMO for entry into the CPMIS.

(5) Upon completing interim CS lesson examinations, the trainee completes the examination's face sheet and the lesson answer sheets. The supervisor returns these to the FAA Academy for servicing.

(6) When the trainee completes the last interim examination and it is serviced as in 71b (5) above, the FAA Academy forwards the supervised final examination, with instructions, to the supervisor if the trainee desires credit and a certificate. The completed supervised final must be returned within one month. Additional instructions will be included in the supervised final examination transmittal envelope explaining the procedures for administering the examination.

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(7) When the trainee completes a supervised final examination, the supervisor mails the correspondence study time chart to the sector office where information can be extracted if so desired. The sector office sends it on to the Academy and it is filed for future analysis. The supervisor mails the examination and all associated forms to the Academy where the examination is graded and recorded. The Academy will issue a certificate for satisfactory completion of the CS.

(8) Receipt of a passing grade on the grade report signifies eligibility to take the certification concepts examination.

(9) The trainee completes OJT-II. The supervisor then completes the trainee progress chart and mails it to the AF sector office. The completion notice is forwarded to the TPMO for entry into the CPMIS. Satisfactory completion of OJT-II and the concepts examination qualifies the trainee to take the certification performance examination.

72. RESIDENT TRAINING.

a. Certificates. FAA Academy certificates will be provided to all students who successfully complete a course of study administered by the FAA Academy.

b. Student Discipline. Employees attending the FAA Academy as students are subject to FAA Academy regulations regarding personal conduct. Insubordination, unexplained absences, and other serious offenses shall be cause for termination of training. The superintendent may terminate from training any employee for just cause and shall notify the trainee's supervisors of such action.

c. Reassignment to Training. An employee who has been terminated from training because he has failed a resident course shall not be reassigned to the course until a reevaluation has been made of the degree to which he/she meets all prerequisites for the course, or upon satisfactory completion of recommended interim study assignments.

73. NONRESIDENT MAKEUP PROGRAM. An employee may apply for or be assigned to a makeup program if authorized by his/her supervisor, the sector manager, and the FAA Academy. To be eligible for this, the employee must have, before termination of his training, the following:

a. Theory Subjects.

(1) Attained an overall grade average of at least 60 percent.

(2) Attained a passing grade of 70 percent in the majority of the theory subjects.

(3) Applied for makeup work to his/her supervisor or his supervisor assigned him to makeup work within 90 days from the last day of resident training.

b. System or Equipment Subjects. In the event of a failure of a system or equipment course on a subject included in the Airway Facilities personnel certification program, a determination will be made by the supervisor and sector manager, in conjunction with the FAA Academy, as to whether the trainee is to be reassigned to resident training or to participate in a nonresident makeup program. If it is determined that a nonresident makeup program is feasible, an improvement program will be prepared promptly by the supervisor for review and approval by the sector manager. The appropriate certification examinations will be

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administered at the conclusion of the improvement program. If the examinations are successfully completed, the trainee will acquire certification authority. The technician certified by this method will be considered equal to a technician who has used resident training to meet the concept requirements and shall be given equal consideration during the selection process to fill a vacancy.

c. Final Examinations. Final examinations in the makeup program will be supervised.

74. NONCONTINUOUS ASSIGNMENTS. Occasionally a situation may develop in which it is advisable to assign an employee, during one trip to the FAA Academy, to attend two nonconsecutive classes. Assignments of this kind are permissible only when fully justified and preassignment arrangements are made with the FAA Academy to provide the student with a supervised correspondence study program or other work assignment for the intervening period between classes. The student's letter of assignment and the FAA Academy assignment letter shall include acknowledgement of the arrangement. Arrangements of this kind may be approved only if the additional cost to the Government is less than the cost of returning the student to his/her headquarters station for the intervening period.

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CHAPTER 10. EVALUATION OF AIRWAY FACILITIES TECHNICAL TRAINING COURSES

80. GENERAL. Training evaluation is the assessment and comparison of employee competence before and after training. The purpose of Airway Facilities training is to develop the abilities of the AF work force so that the functions of the service are performed expertly and at minimum cost. This chapter establishes and describes the methods to be used in the evaluation of technical training courses developed and conducted for Airway Facilities personnel.

81. OBJECTIVES. The objectives of the evaluations are to determine that:

- a. All authorized agency and out-of-agency AF technical training courses meet stated objectives and satisfy the requirements of the job.
- b. A minimum of overlap and duplication exists in the overall training program.
- c. All methods of training are being used to the best advantage.
- d. The administration of the AF technical training program is being carried out effectively at all levels.
- e. Maximum effectiveness is being achieved of the training provided.

82. EVALUATION PLAN.

a. Order 3000.6B, requires the preparation of a specific evaluation procedure as part of each training development plan, prepared by the proposed training organization, for each new agencywide training course. The evaluation program described in this order further extends the provisions of Order 3000.6B by prescribing the responsibilities of the various levels of Airway Facilities management required to implement and sustain an active evaluation program.

b. The evaluation method for AF technical training courses will be to collect and analyze pertinent data upon which to base decisions regarding corrective action or determine the need for further analysis. The documents that serve as a basis for special studies are:

- (1) Job task analysis.
- (2) Airway Facilities training proposals.
- (3) Approved training development plans.
- (4) Performance standards.
- (5) Procedures and policies.
- (6) Position descriptions.
- (7) Maintenance concept.
- (8) Course reports.

83. RESPONSIBILITIES.

a. Program Engineering and Maintenance Service shall:

(1) Continually review reports containing information on, or bearing upon, the Airway Facilities program such as:

- (a) Facility outage and equipment failure reports.
- (b) APM evaluation reports.
- (c) Facility inspection and program evaluation summary reports.

(2) Recommend or authorize corrective action based on evaluation findings, taking into consideration the requirements of such offices, services, and regions that have a major interest in the course.

b. Office of Personnel and Training shall:

(1) Provide professional training advice and assistance in the evaluation process, and make recommendations to the Program Engineering and Maintenance Service for corrective action based on reviews of evaluation findings.

(2) Conduct and participate in the evaluation process as required by Order 3000.6B.

c. FAA Academy shall:

(1) Develop the necessary questionnaires, other evaluation materials, and procedures necessary to implement the process. These questionnaires, procedures to collect data, and other evaluation measures shall be submitted to the Program Engineering and Maintenance Service through the Office of Personnel and Training for review and approval prior to full implementation. The type of questionnaires shall be as follows:

(a) Student Questionnaires. Questionnaires that are designed to elicit information from the student on his/her final day of resident training at the FAA Academy. These questionnaires will aid in determining how well preresident OJT and correspondence study (if applicable) prepared the student for resident training and will give specific information on the resident portion of the course.

(b) Graduate Questionnaires. Questionnaires designed to provide information on the total course. These questionnaires are to be completed by the employee between 90 and 180 days after completion of all phases of the course.

(c) Supervisor Questionnaires. Questionnaires designed to provide information pertaining to the employee's performance before and after attending a training course. Supervisors shall make entries in these questionnaires before the trainee starts a training course and 90 to 180 days after the student has completed all phases of the course.

(2) Summarize the data collected and submit reports to the Program Engineering and Maintenance Service through the Office of Personnel and Training.

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(3) Make recommendations to the Program Engineering and Maintenance Service and the Office of Personnel and Training for corrective action based upon evaluation findings.

(4) Participate in special evaluations as required by Order 3000.6B.

(a) AF Sectors Shall:

1. Review and evaluate questionnaires completed by supervisors.
2. Make recommendations to the regional AF division for corrective actions.

(b) Regional AF divisions shall:

1. Review and evaluate reports containing information on, or bearing upon, the AF training program. These reports include:
 - a. Facility outage and equipment failure reports.
 - b. Regional AF program evaluation reports.
 - c. Facility technical inspection and evaluation reports.
2. Participate in the evaluation process as required by Order 3000.6B.

84. RELATIONSHIP TO EVALUATIONS PLANNED AND APPROVED IN ACCORDANCE WITH ORDER 3000.6B, TRAINING. The provisions of this chapter are an extension of those in Order 3000.6B, which provide for the coordination of evaluation activities on each training program. Any corrective action recommended as a result of evaluations conducted in accordance with Order 3000.6B proposals shall be made and coordinated with the Program Engineering and Maintenance Service. The Office of Personnel and Training shall advise the Program Engineering and Maintenance Service of training program evaluations of a national scope and solicit their participation in the evaluation and corrective action process. The Program Engineering and Maintenance Service may provide recommendations for specific evaluations based upon reports of inadequate training or suspected deficiencies.

85. RELATIONSHIP TO THE AIRWAY FACILITIES PERSONNEL CERTIFICATION PROGRAM. The Certification Examination Control Center, shall be kept informed of all evaluations and resulting changes in the training programs that might affect the certification process. The certification program contains a self-evaluation and a continuous validation and updating process.

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CHAPTER 11. SECTOR TECHNICAL TRAINING MANAGEMENT RESPONSIBILITIES

90. **GENERAL.** This chapter establishes the guidance and responsibilities for the administration of the technical training function at the sector level. The implementation of the 80's Maintenance Concept Plan, with the accompanying increase in the size of sectors and the introduction of many new complex systems necessitated the restructuring of technical training into a two-level system. The involvement of the sector in technical training is significant. The sector training program includes the use of expanded and comprehensive programs using CBI consoles and other multimedia materials to conduct predevelopmental, developmental, journeyman, proficiency, and management training. Each new employee, as well as each new equipment or major modification to existing equipment, represents a training need. There is also a growing requirement for refresher (proficiency) training on many systems because their high reliability does not give the technician sufficient exposure to maintain proficiency. The increase in training responsibilities generates a requirement for the assignment of adequate resources for the effective administration of the sector training program. Staffing will be provided in the sector program support group to manage and accomplish the expanded training program.

91. **GUIDANCE.** The Airway Facilities sector is responsible for the conduct, administration, and management of the sector-level technical training program with overall guidance and direction provided by the regional Airway Facilities division. The sector manager is responsible for the management of the sector training program. An effective training program requires deliberate and positive direction by sector management personnel. The substantial workload imposed by the training program will require the assignment of adequate resources for its administration. Although requirements may vary due to sector size, configuration and equipment population, the sector training program will generally require a staff which includes the assistant manager for program support, one or more proficiency development specialists, and administrative and support personnel.

92. **RESPONSIBILITIES.** The assistant manager for program support, under the direction of the sector manager, is assigned the duties and responsibilities for:

- a. Administering the sector training program.
- b. Conducting or arranging for all necessary training.
- c. Developing the sector training requirements and providing adequate justification.
- d. Developing and administering the sector training budget.
- e. Developing technical training courses needed within the sector when they are not otherwise available.
- f. Administering and evaluating the technical proficiency development program within the sector.
- g. Conducting or arranging for OJT.
- h. Coordinating and establishing the total training schedule.

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- i. Administering or arranging for the administration of equivalency examinations and correspondence study supervised final examinations.
- j. Providing for certification performance examiners, system instructors, and relief technicians in support of the certification and training program.
- k. Overseeing and providing guidance for technician training makeup and improvement programs.
- l. Maintaining accurate training and certification records.
- m. Keeping abreast of all changes in equipment concepts, technology, and software/hardware and assuring that the sector training program is modified accordingly.

93. PROFICIENCY DEVELOPMENT SPECIALIST (PDS). The implementation of CBI training, increased OJT, and refresher training has significantly increased the sector training workload. The establishment of PDS positions has been implemented for assisting the assistant manager for program support in accomplishing those functions for which the sector is responsible in the Airway Facilities training program. The sector training program can be done efficiently by concentrating training duties and responsibilities in a single position. Although it will not be necessary for the PDS to be completely proficient on all systems/equipment, it is recommended that he/she be trained and have certification on the major systems/equipment in his/her career specialty. It is also recommended that the PDS have some formal training in the training career field. The PDS may, when necessary, utilize other technicians or engineers for presentation of specific material.

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CHAPTER 12. RECORDS AND FORMS

95. GENERAL. Agency guidance for the preparation, distribution, and maintenance of training certificates, reports, and records is contained in Order 3000.6B. This chapter provides supplementary information for Airway Facilities personnel.

96. CRITERIA.

a. The employee shall be provided with a written record of all educational and training achievements. This will take the form of a certificate issued to the employee upon successful completion of any agency conducted or sponsored course. In the case of a course of more than eight hours duration, conducted by a contractor, the agency will ensure that an appropriate certificate is issued.

b. The certificate issued to the employee should contain the following information:

- (1) Employee's name.
- (2) Course name.
- (3) Location of training.
- (4) Number of hours.
- (5) Statement of successful completion.
- (6) Date of completion.
- (7) Signature of issuing official.

c. It is to be understood that this certificate does not imply more than appears on the face of it. No statement should appear which indicates the method by which the course or option prerequisites were met. The certificate is intended to reflect that which actually transpired, i.e., that the employee attended the course and successfully completed it.

97. OFFICIAL RECORDS. Official records shall contain evidence of whatever educational or training activity the employee has been involved in whether completed or not. The record should show at least the following information:

- a. Employee's name..
- b. Type of training.
- c. Location of training.
- d. Course name and number.
- e. Number of hours.

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- f. Date of completion.
- g. Final grade, if applicable.
- h. Other comments, as appropriate.

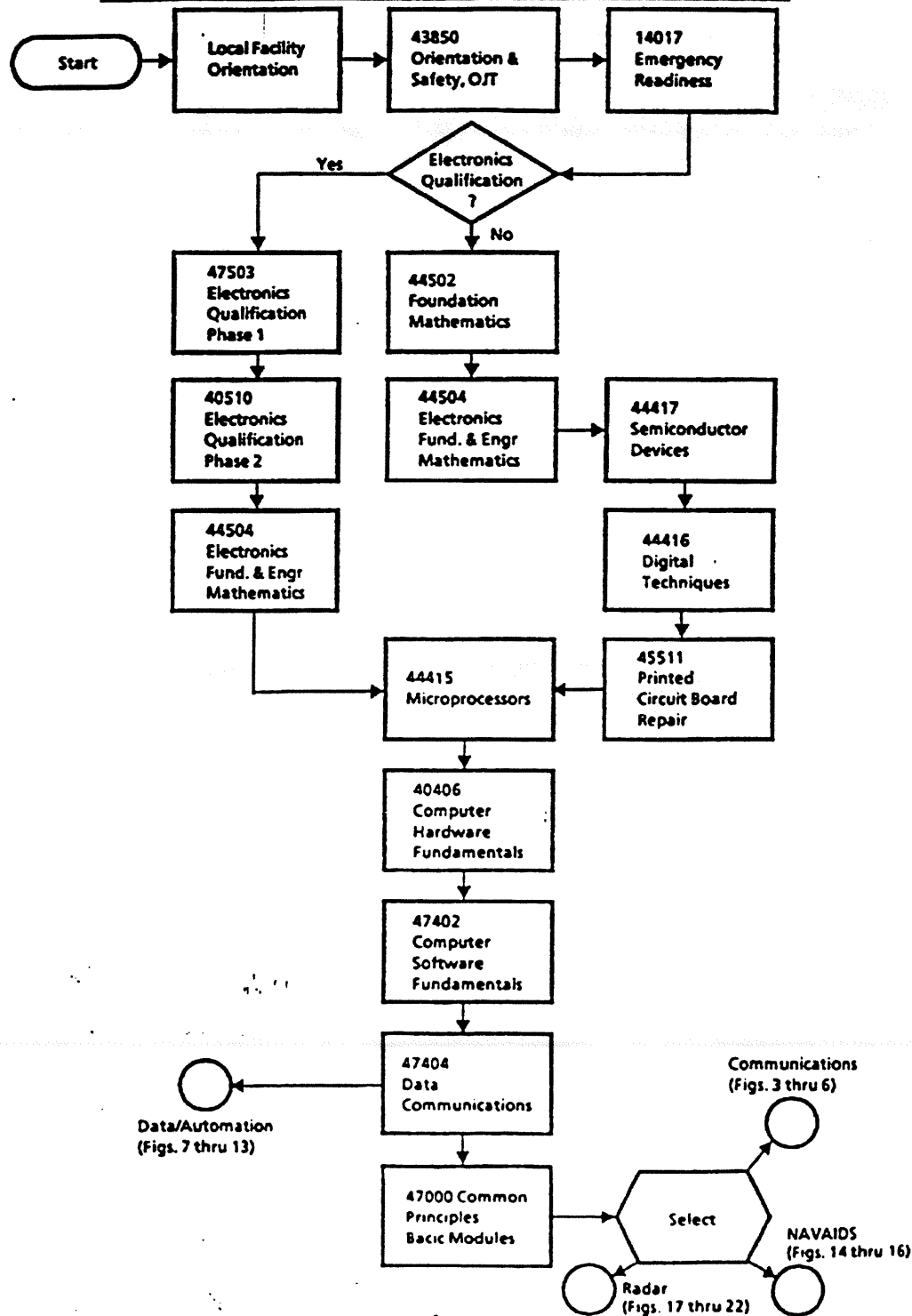
98.-99. RESERVED.

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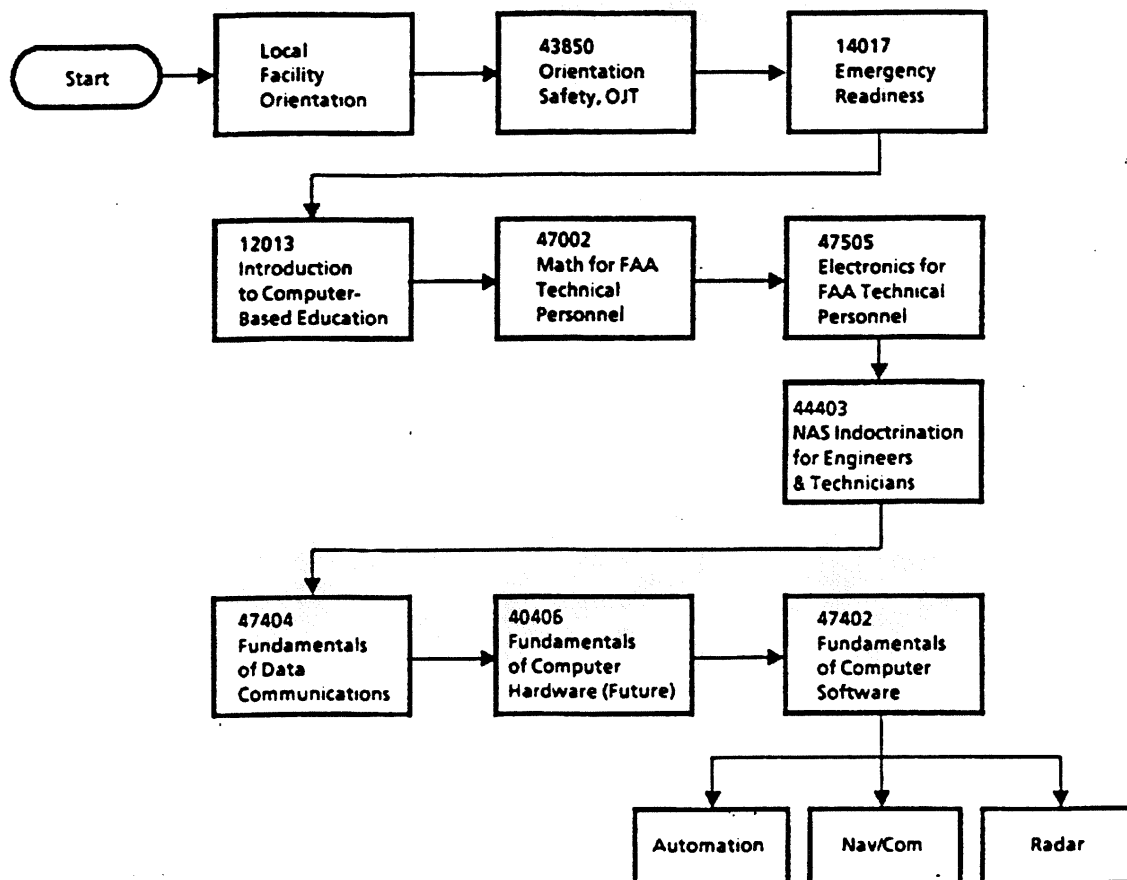
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APPENDIX 1

FIGURE 1. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN



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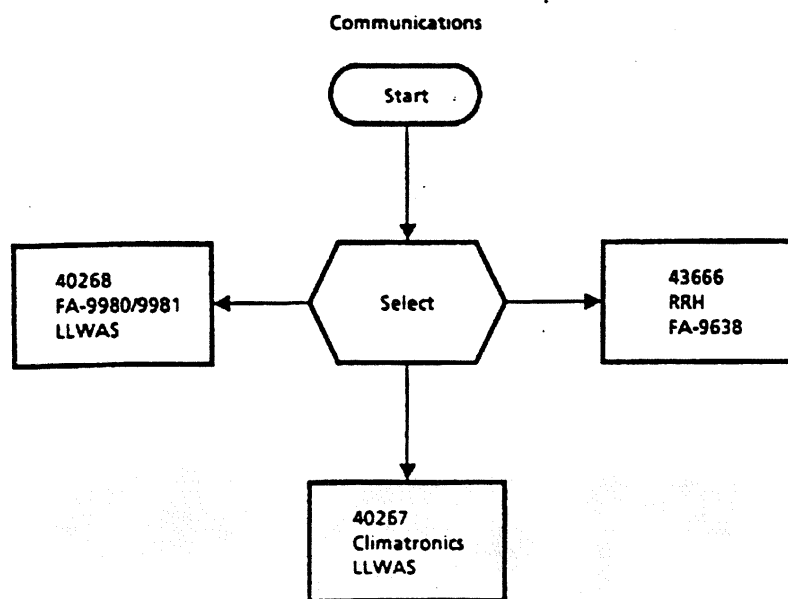
* **FIGURE 2. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN (PROPOSED)**

Note: Use of this figure will become effective upon completion of listed course(s) development.

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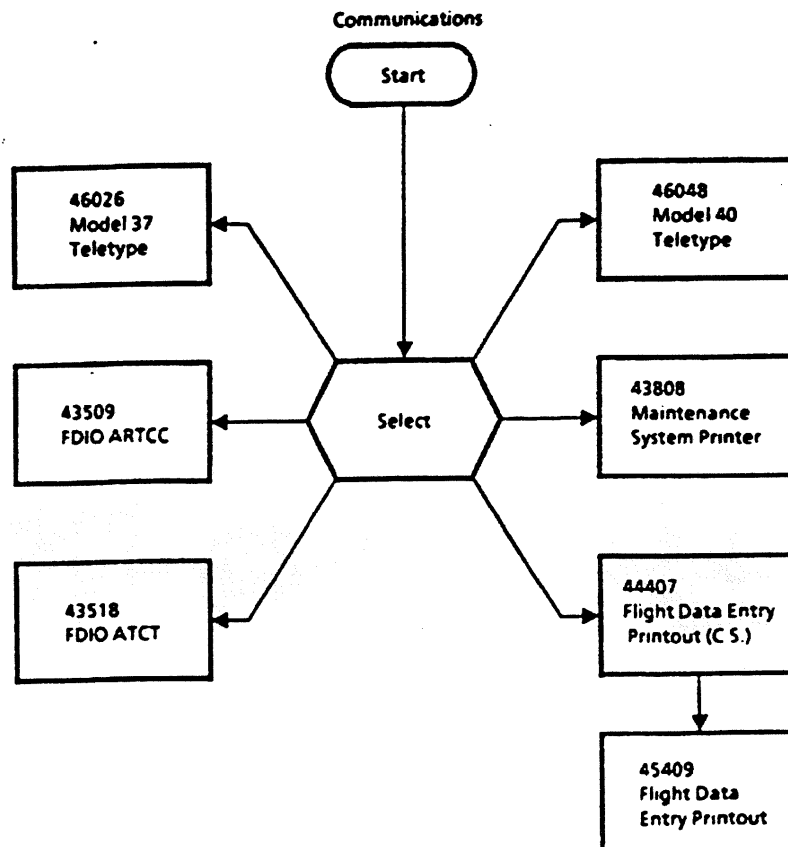
★ **FIGURE 3. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
COMMUNICATIONS AREA (CONTINUED FROM FIGURE 1)**



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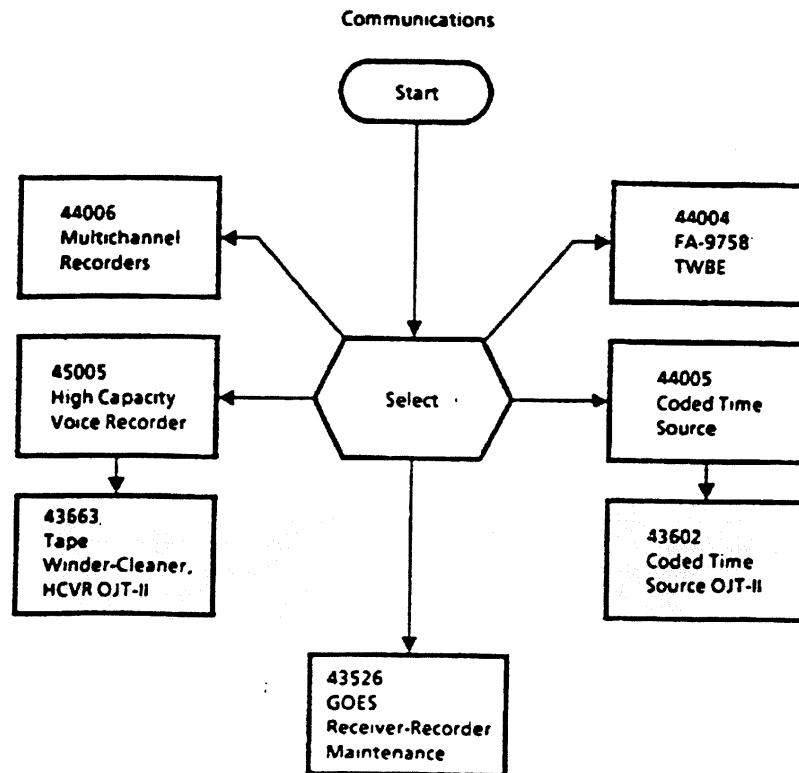
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**FIGURE 4. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
COMMUNICATIONS AREA (CONTINUED FROM FIGURE 1)**



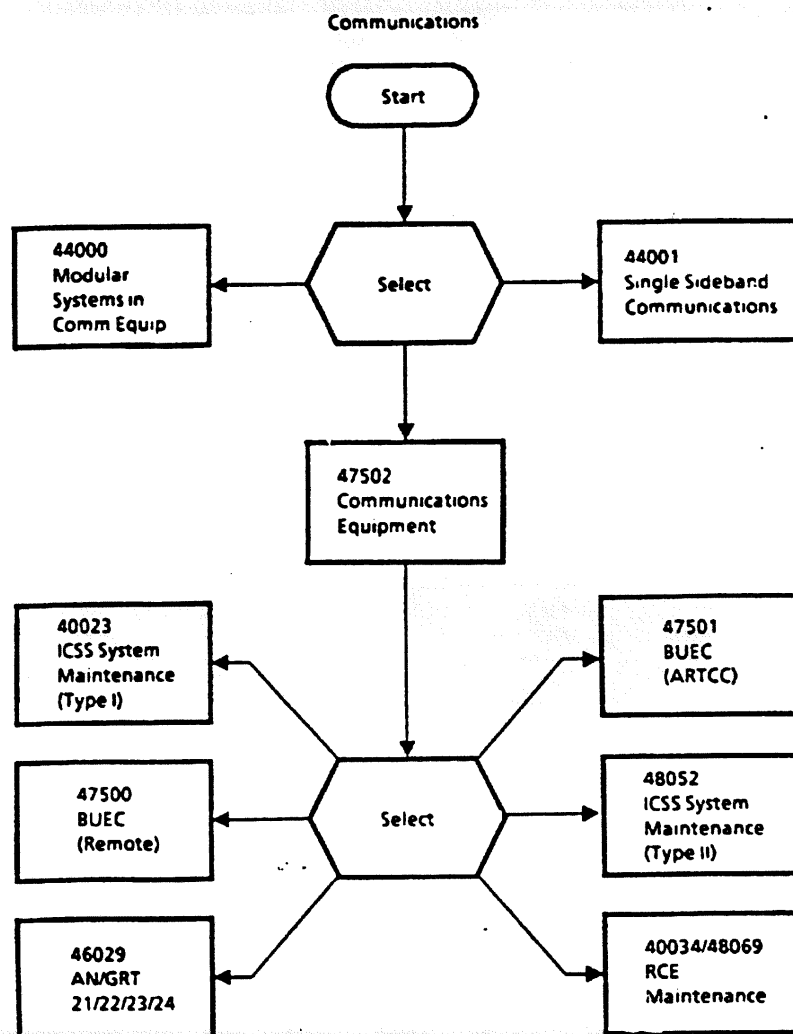
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**FIGURE 5. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
COMMUNICATIONS AREA (CONTINUED FROM FIGURE 1)**



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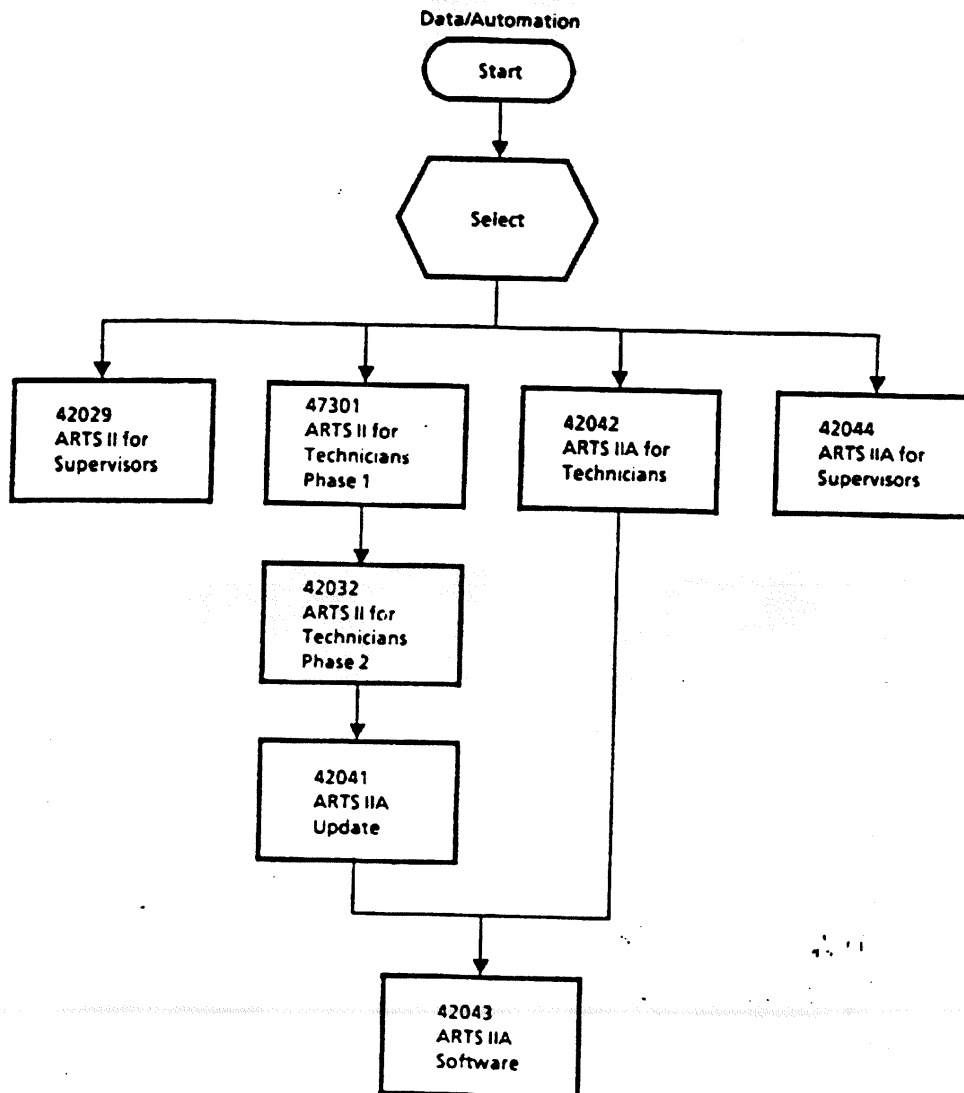
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**FIGURE 6. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
COMMUNICATIONS AREA (CONTINUED FROM FIGURE 1)**

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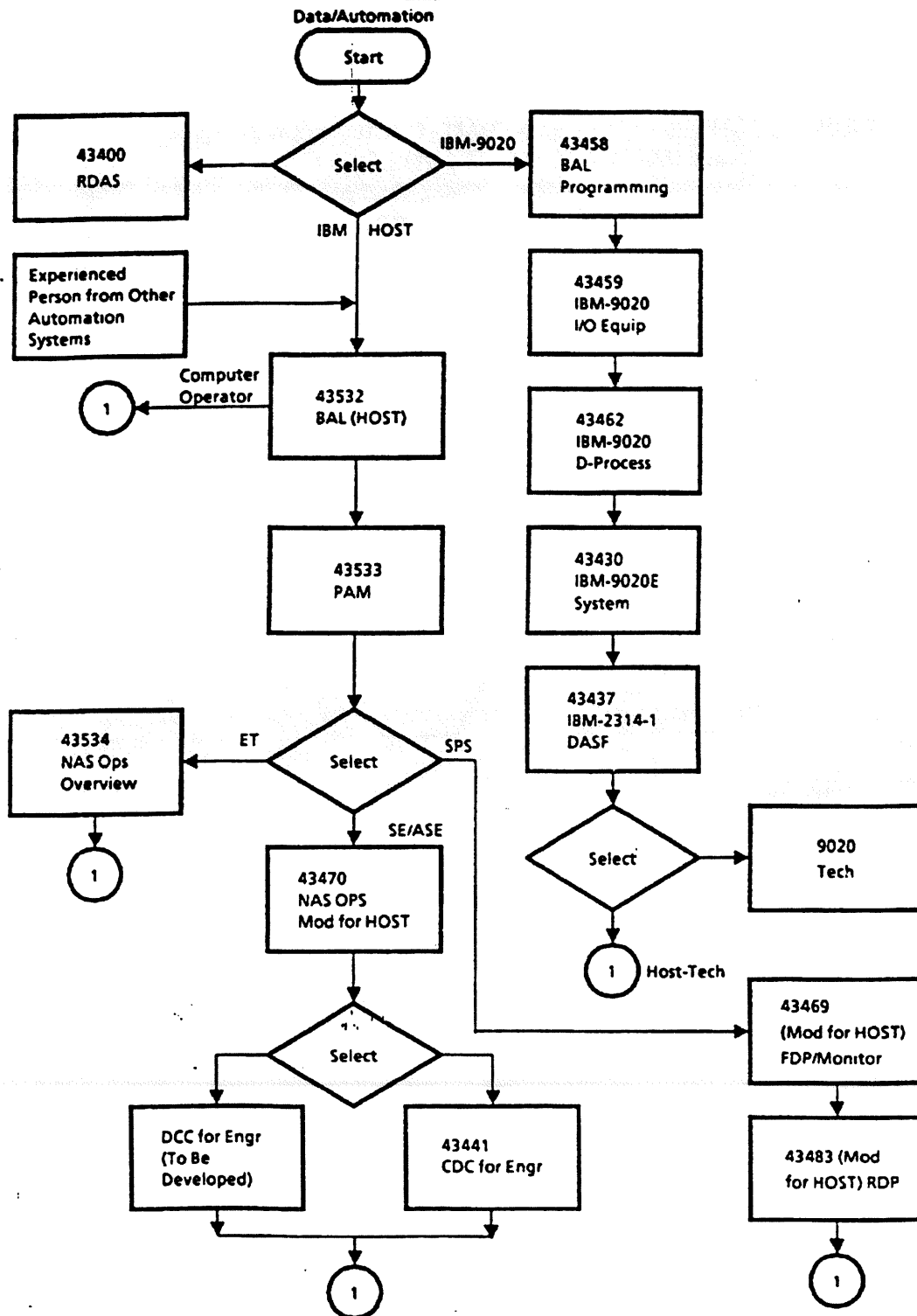
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**FIGURE 7. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**



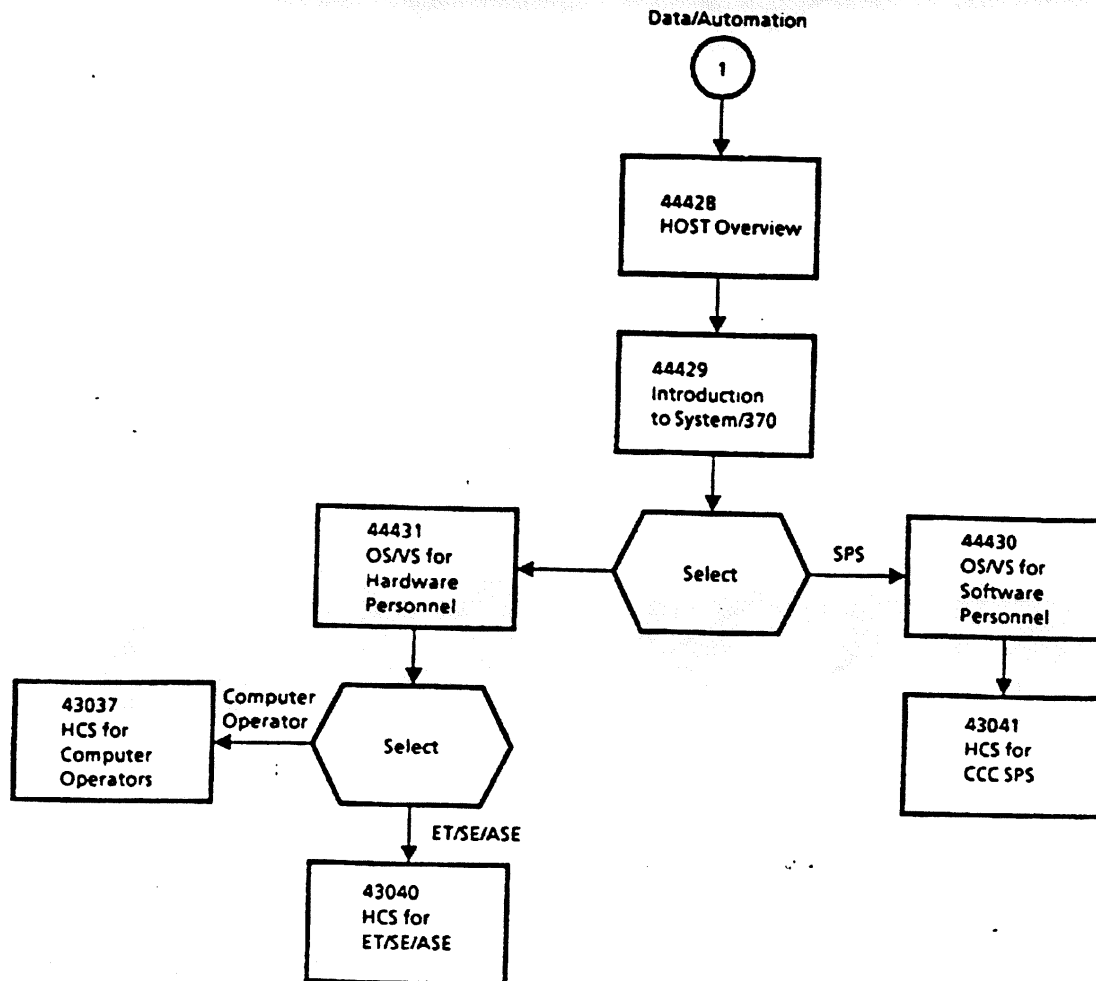
**FIGURE 8. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**



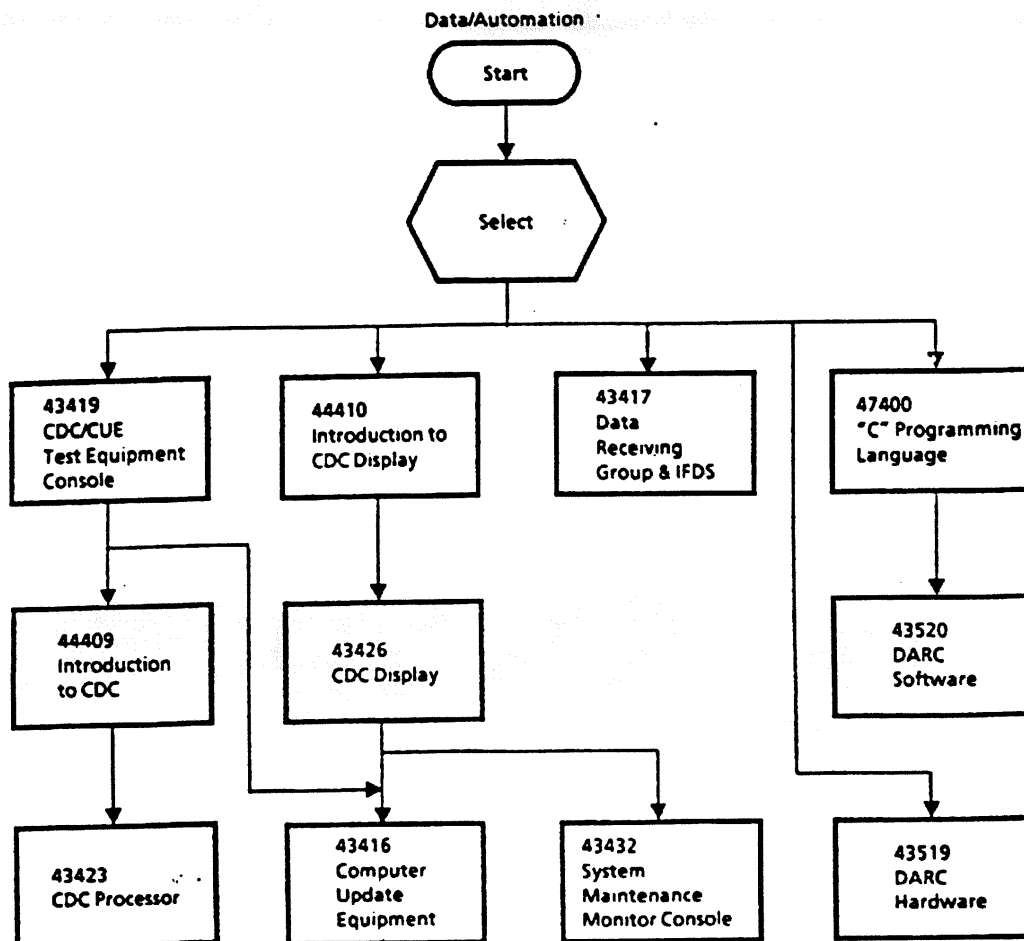
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FIGURE 9. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
HOST TRAINING (CONTINUED FROM FIGURE 8)



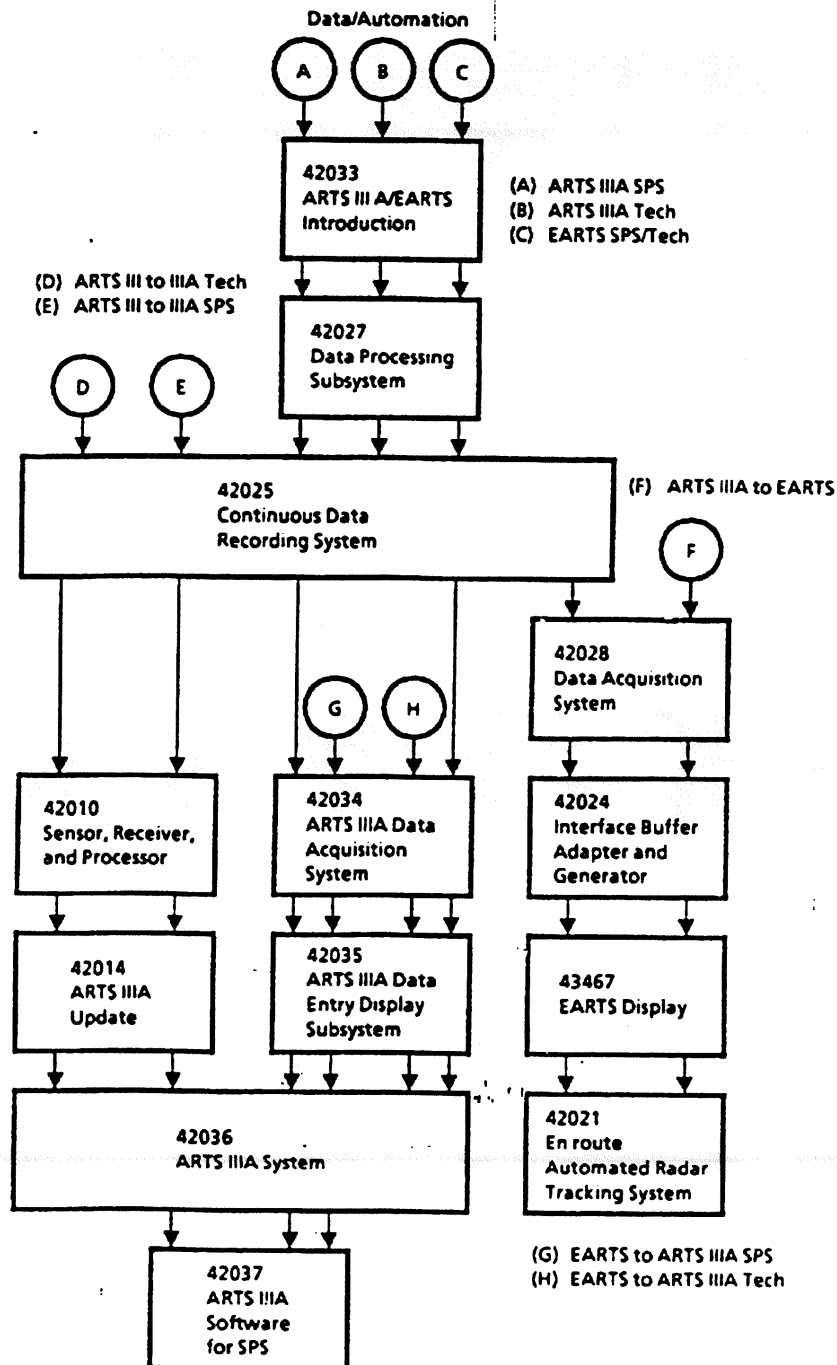
★ **FIGURE 10. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**



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**FIGURE 11. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**

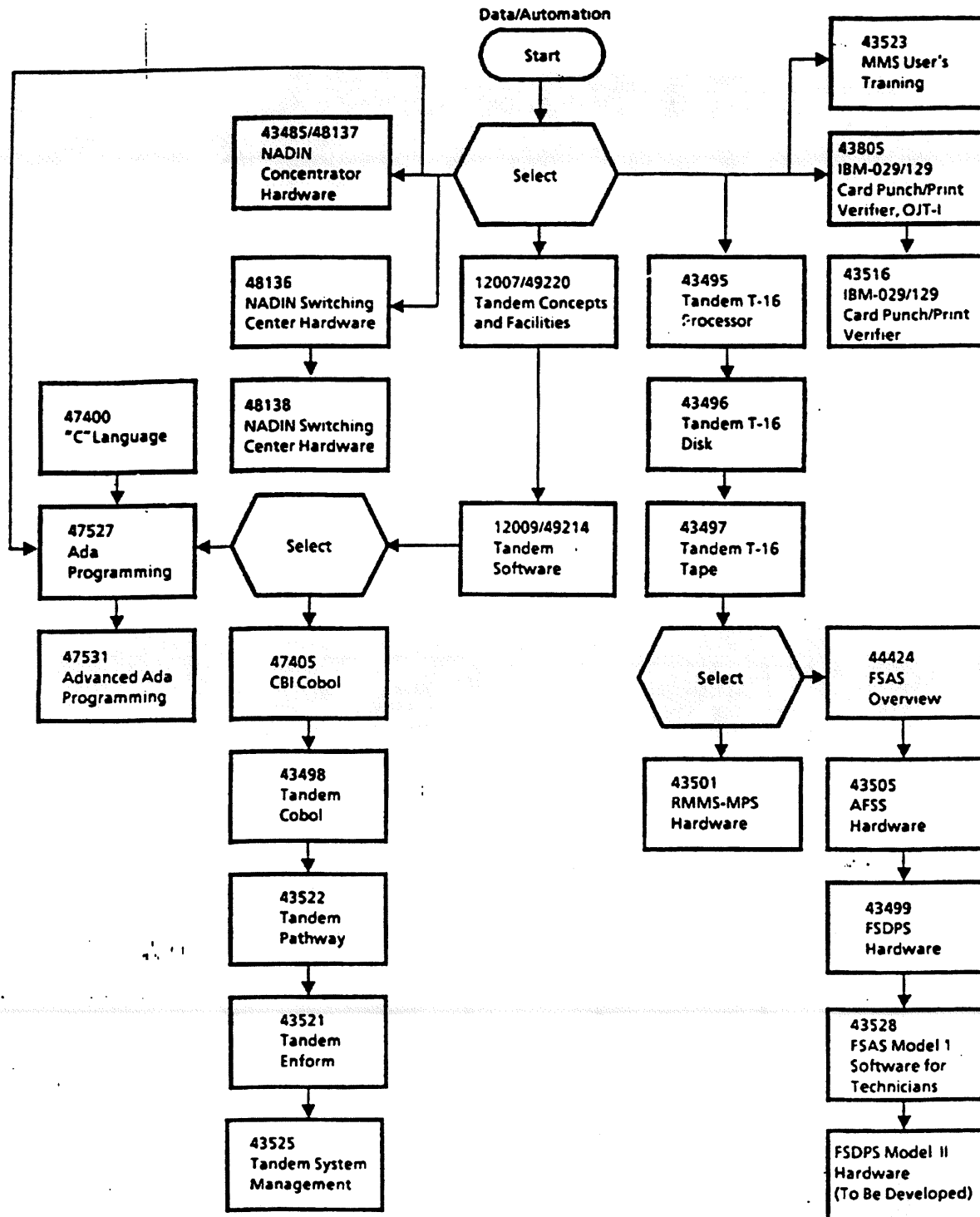


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★ **FIGURE 12. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**



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**FIGURE 13. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
DATA/AUTOMATION AREA (CONTINUED FROM FIGURE 1)**

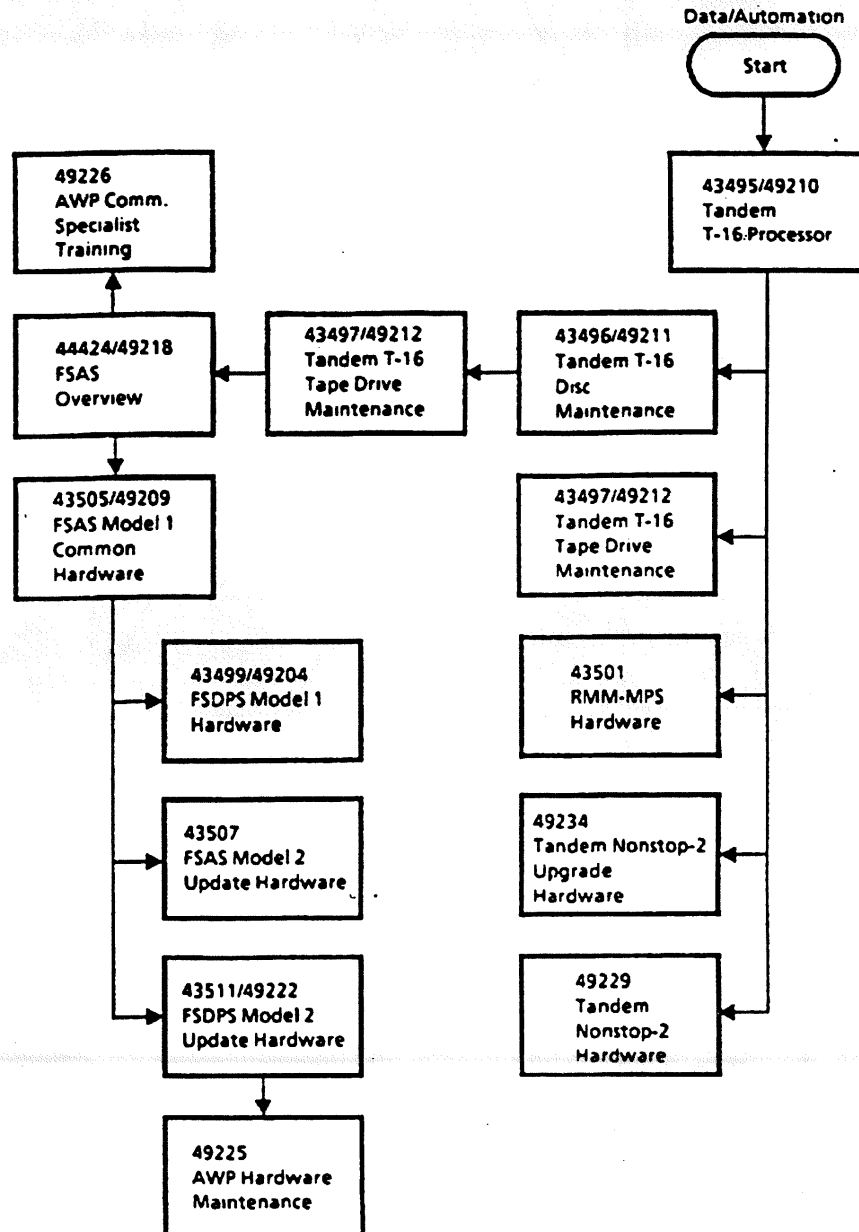
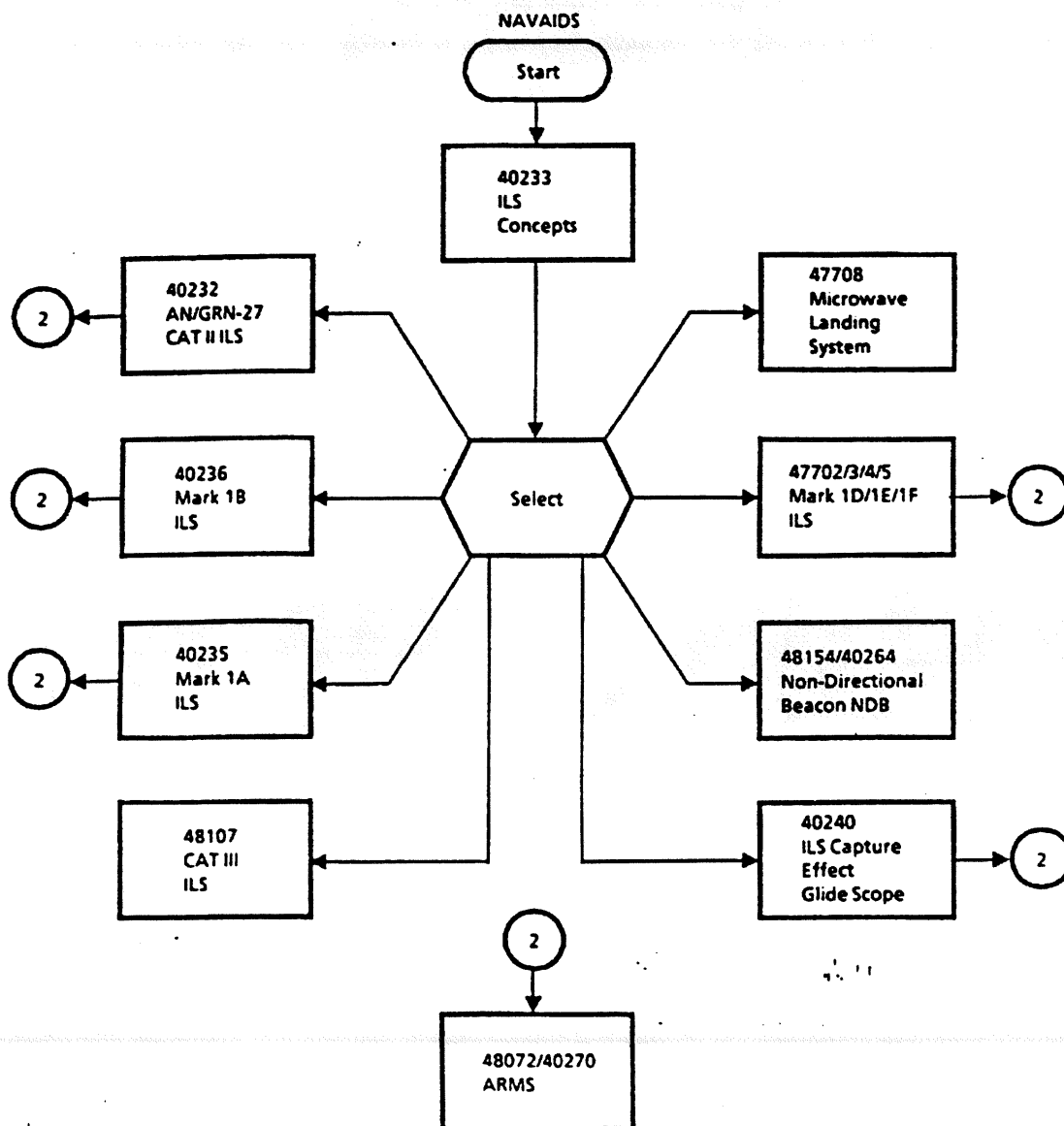


FIGURE 14. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
NAVAIDS AREA (CONTINUED FROM FIGURE 1)

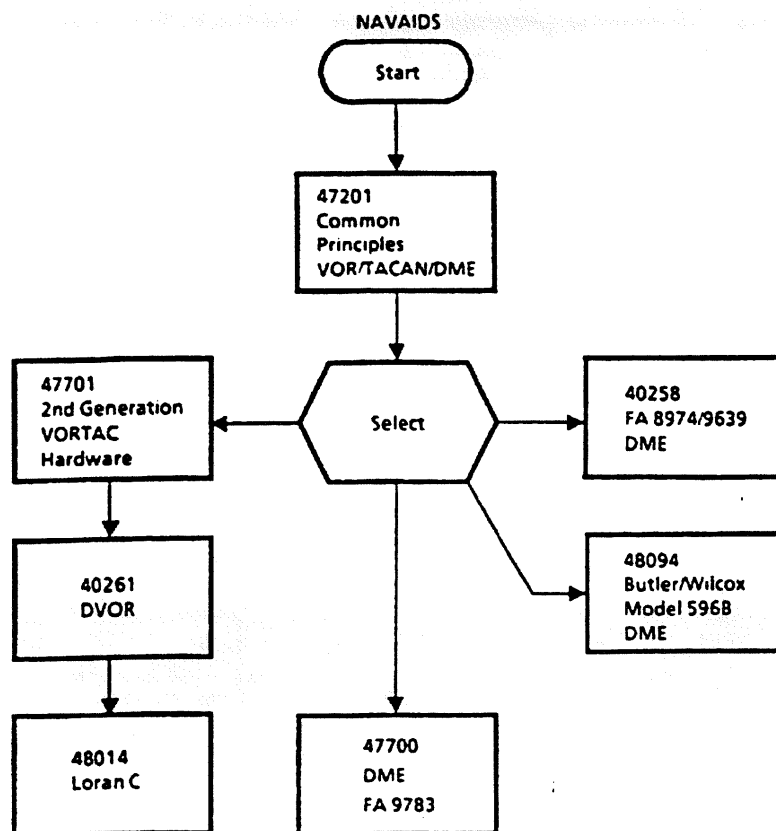


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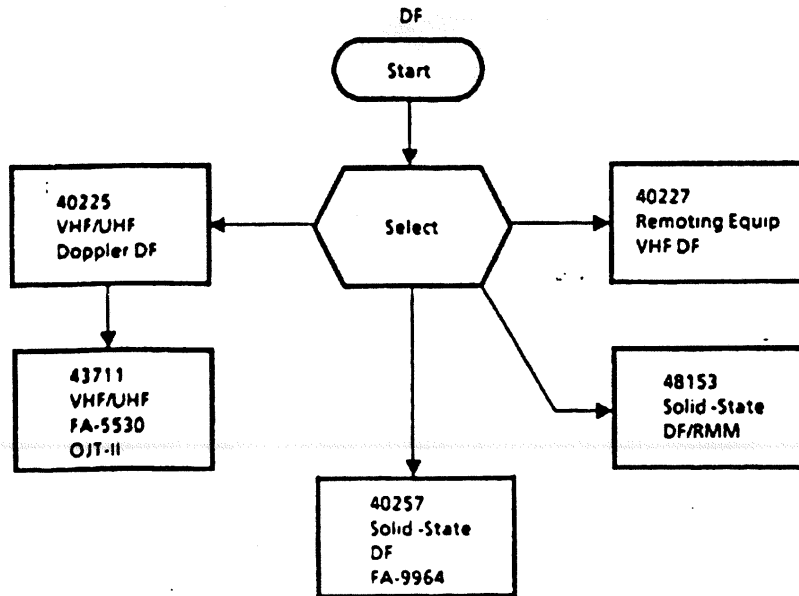
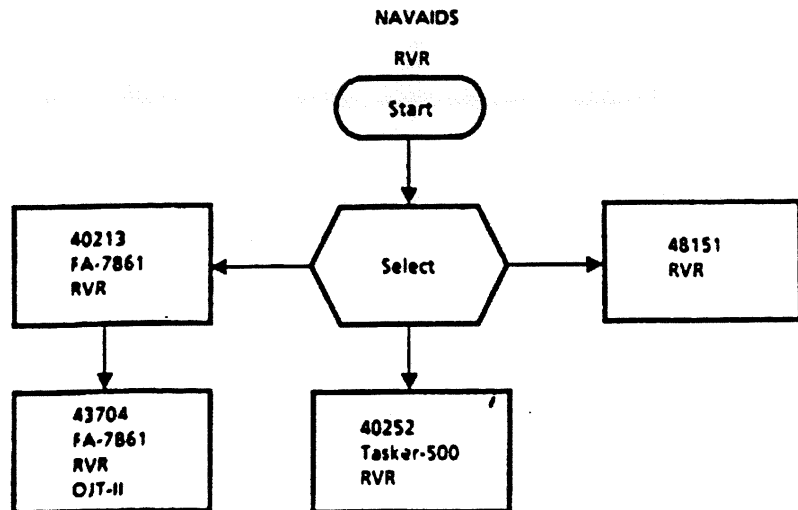
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**FIGURE 15. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
NAVAIDS AREA (CONTINUED FROM FIGURE 1)**



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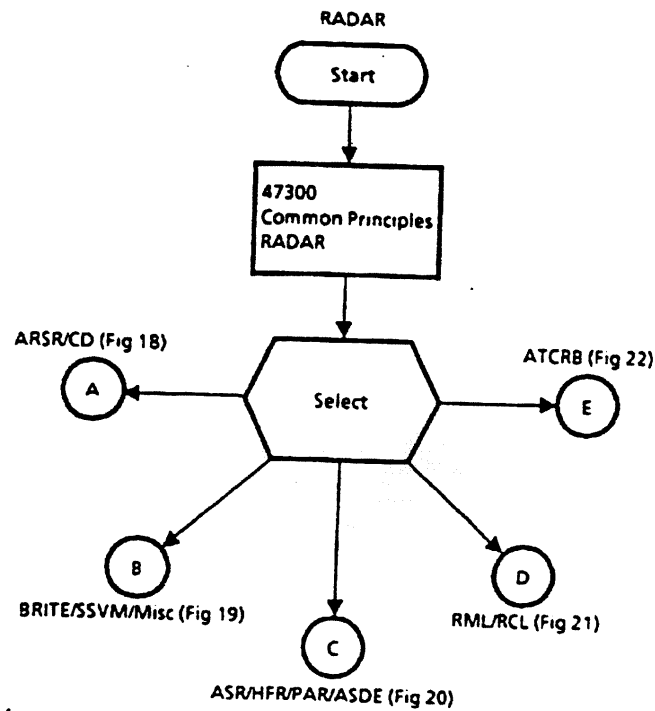
**FIGURE 16. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
NAVAIDS AREA (CONTINUED FROM FIGURE 1)**



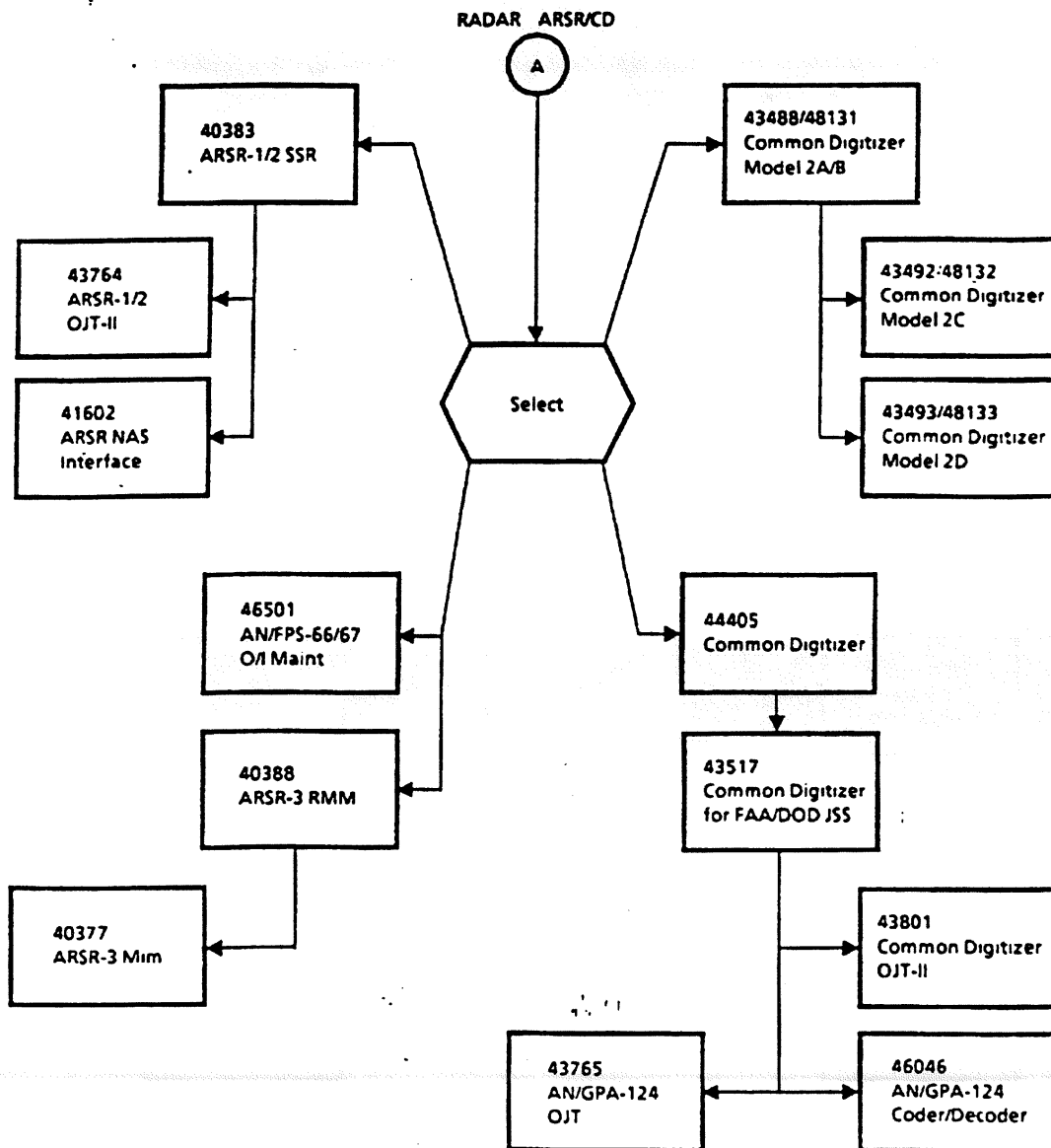
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**FIGURE 17. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 1)**



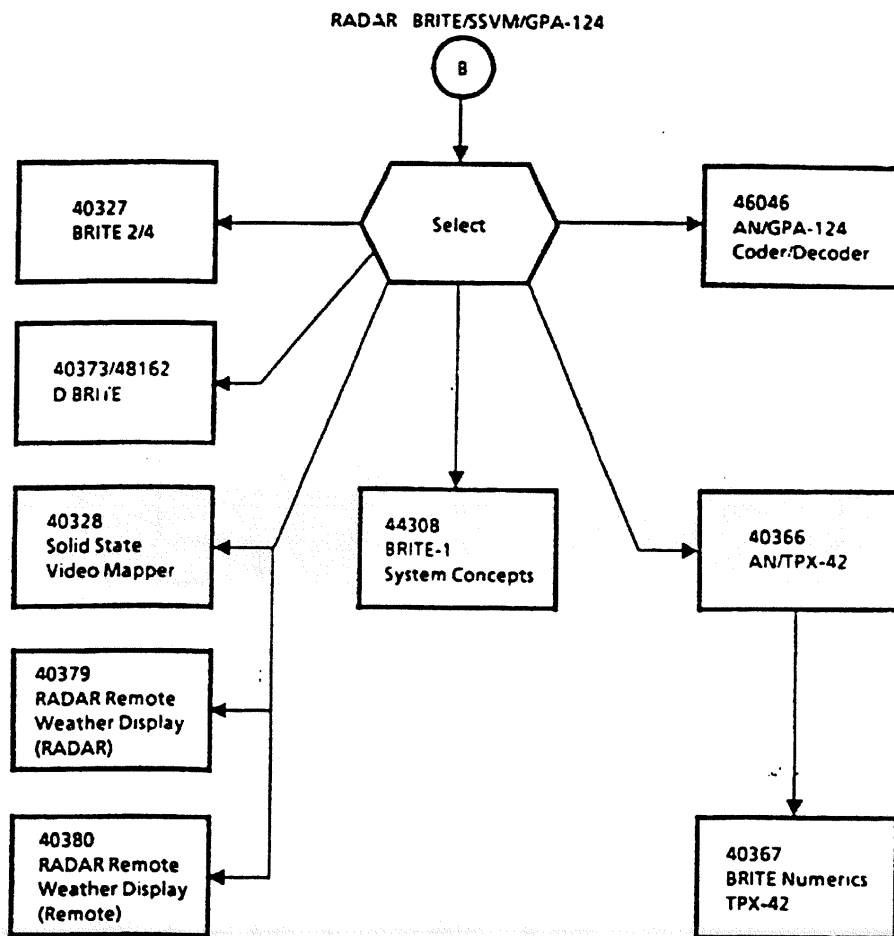
**FIGURE 18. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 16)**



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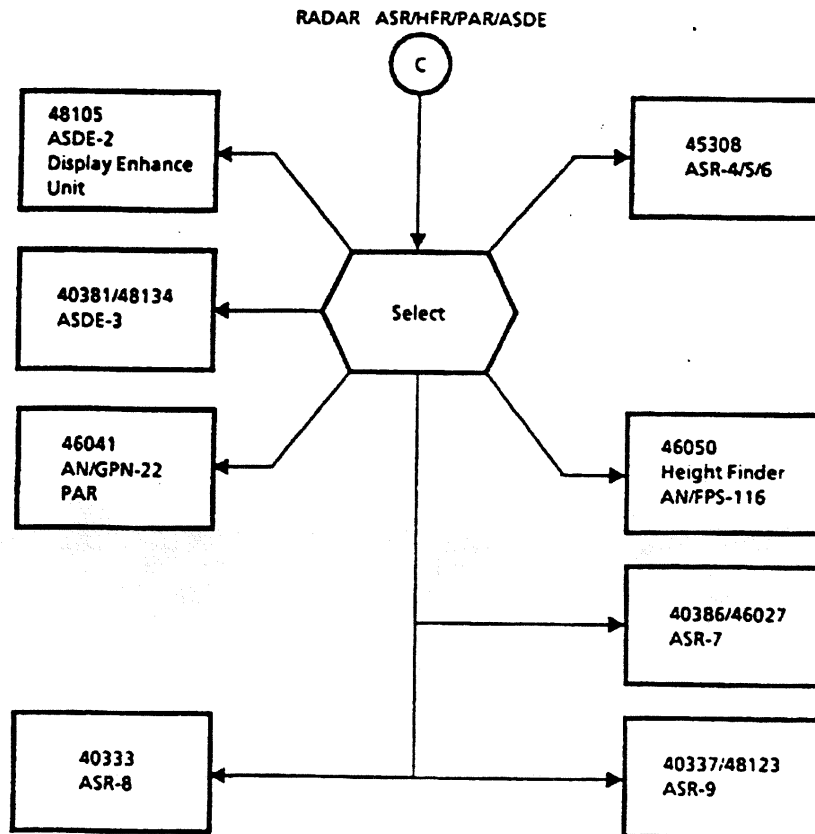
**FIGURE 19. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 16)**



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**FIGURE 20. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 16)**

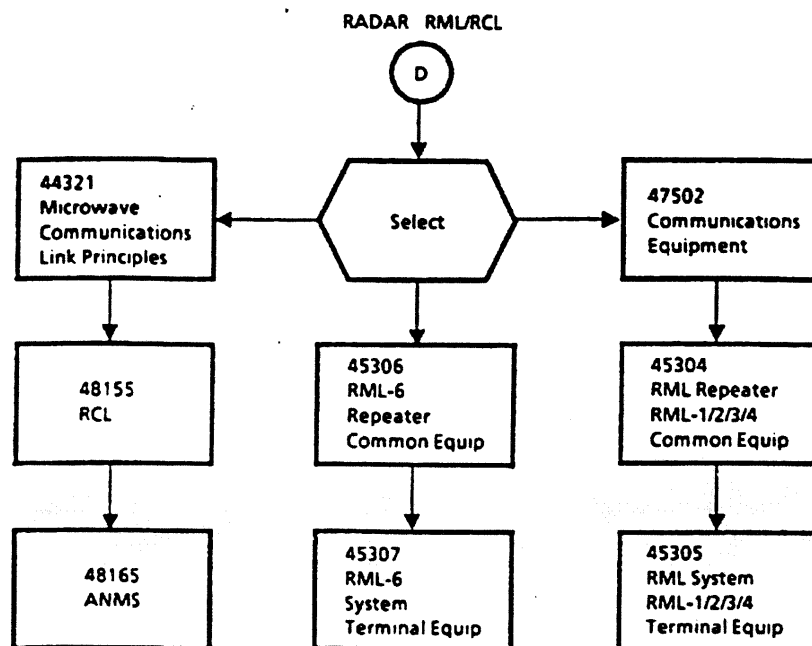


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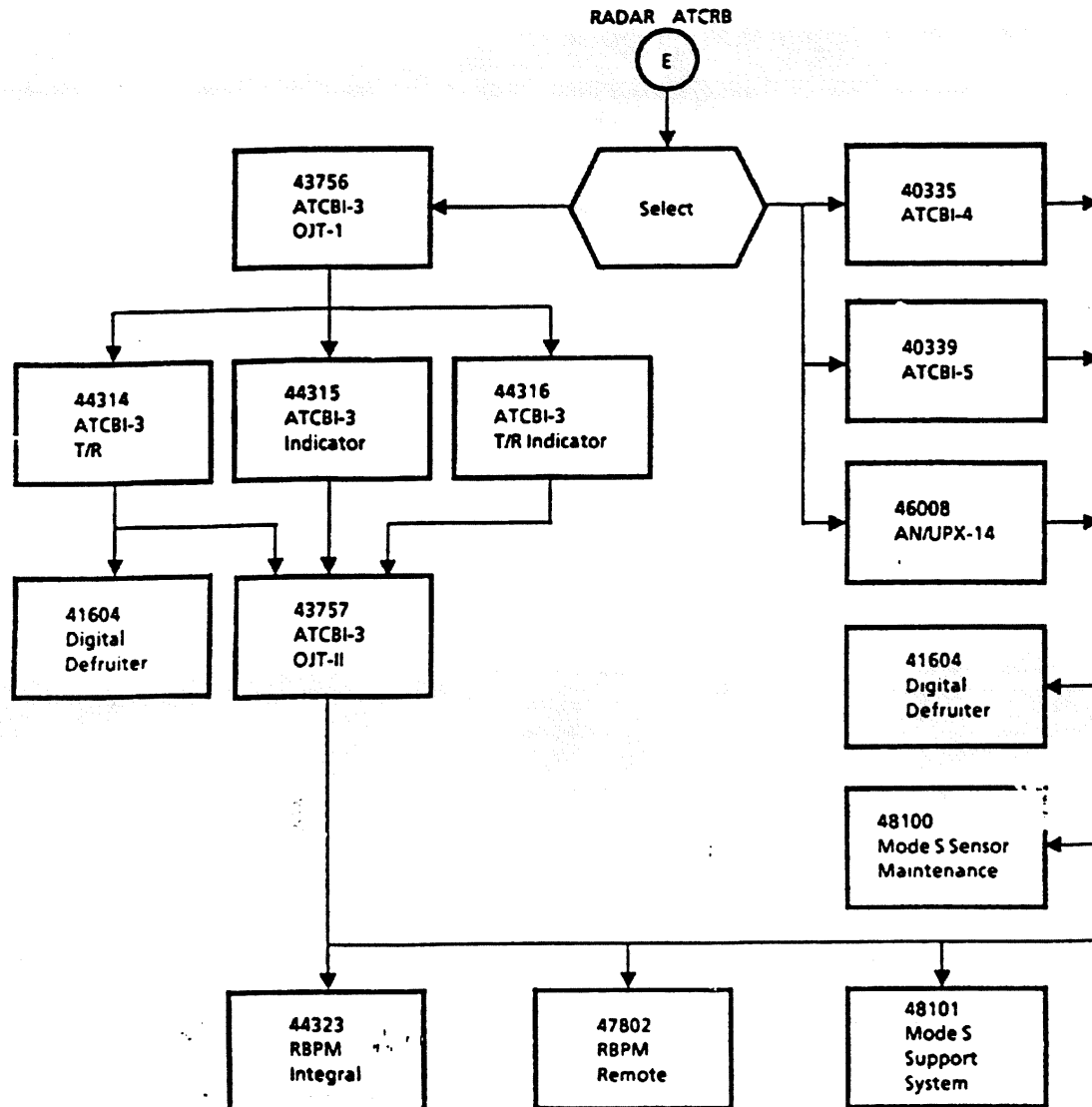
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**FIGURE 21. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 16)**



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**FIGURE 22. TRAINING PROGRESSION CHART - ELECTRONICS TECHNICIAN,
RADAR AREA (CONTINUED FROM FIGURE 16)**

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FIGURE 23. TRAINING PROGRESSION CHART
ENVIRONMENTAL SPECIALIST/MAINTENANCE MECHANIC

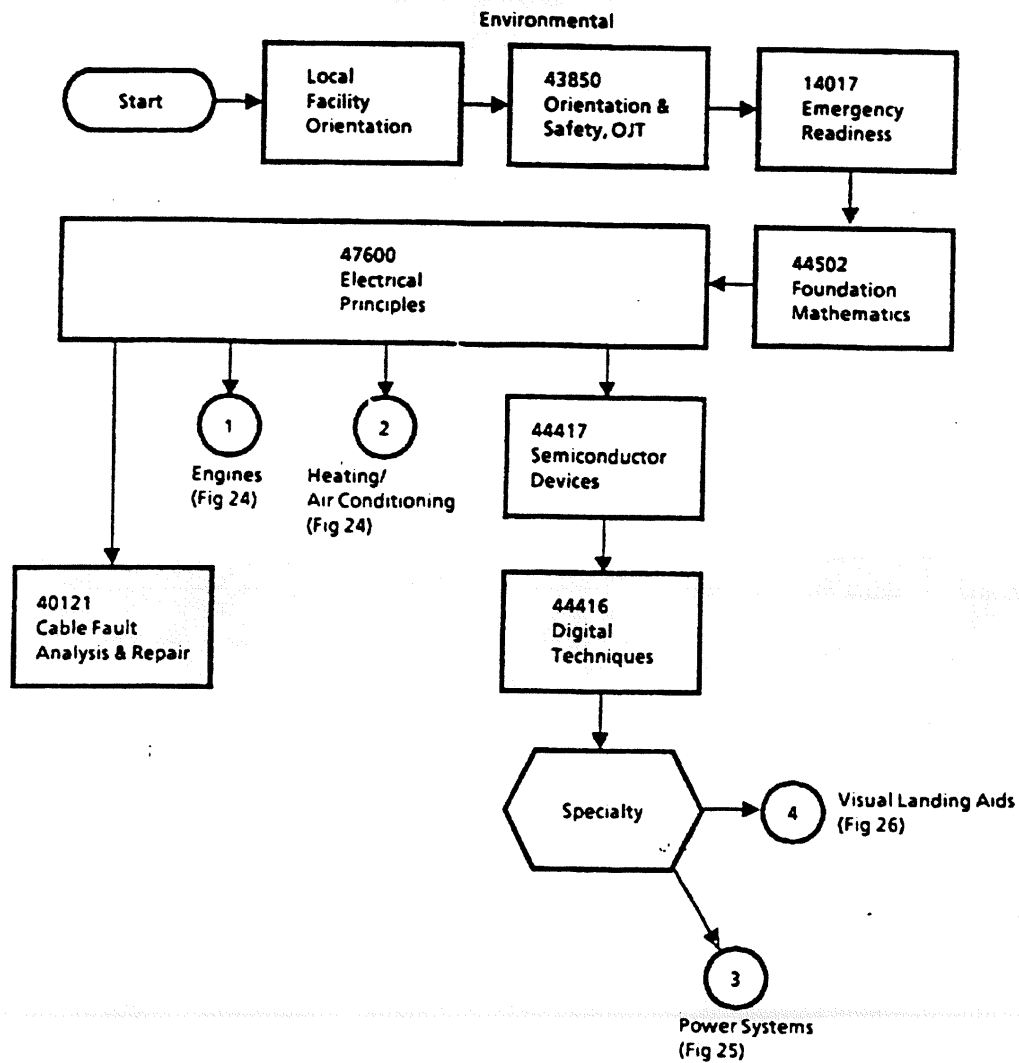
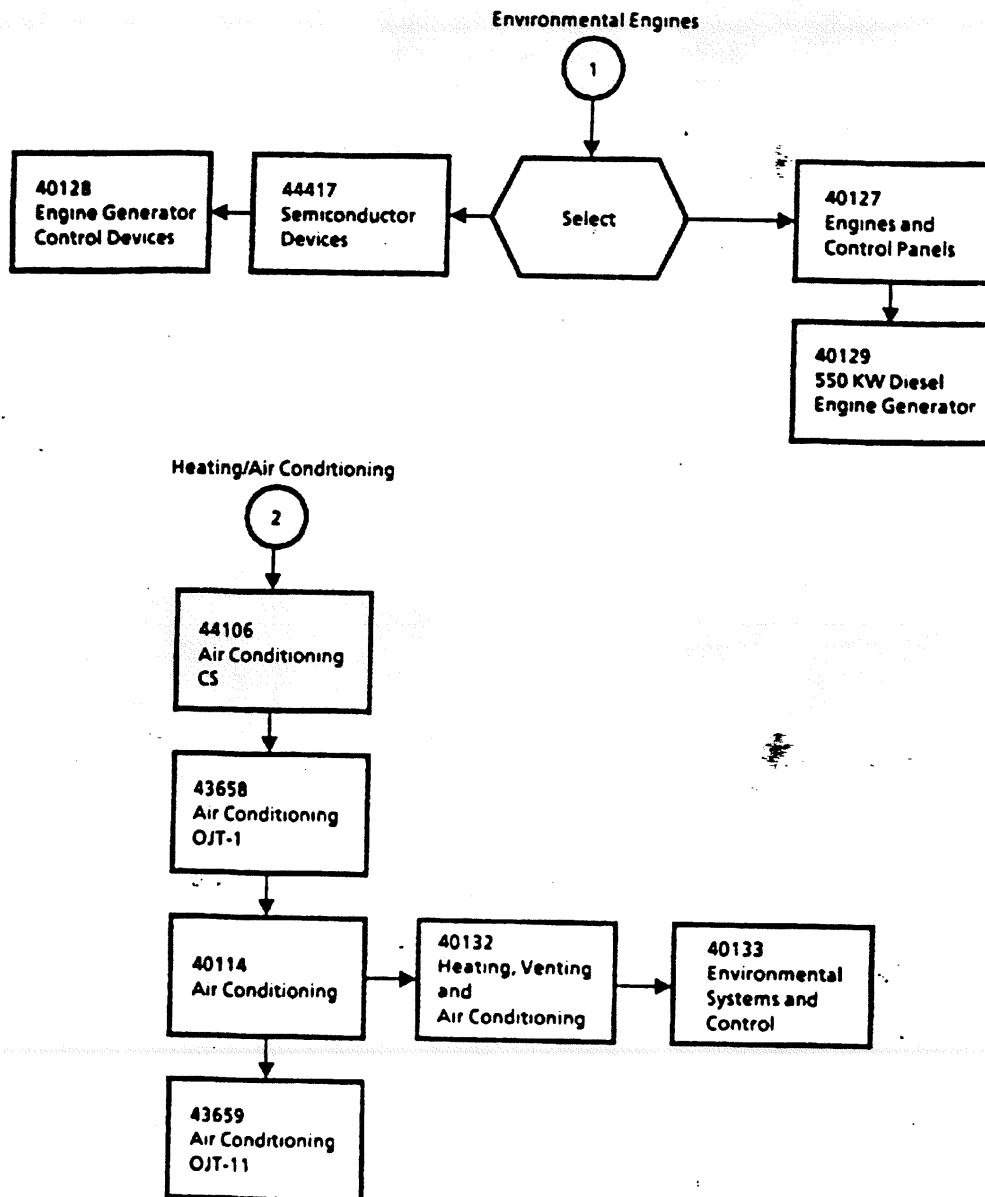


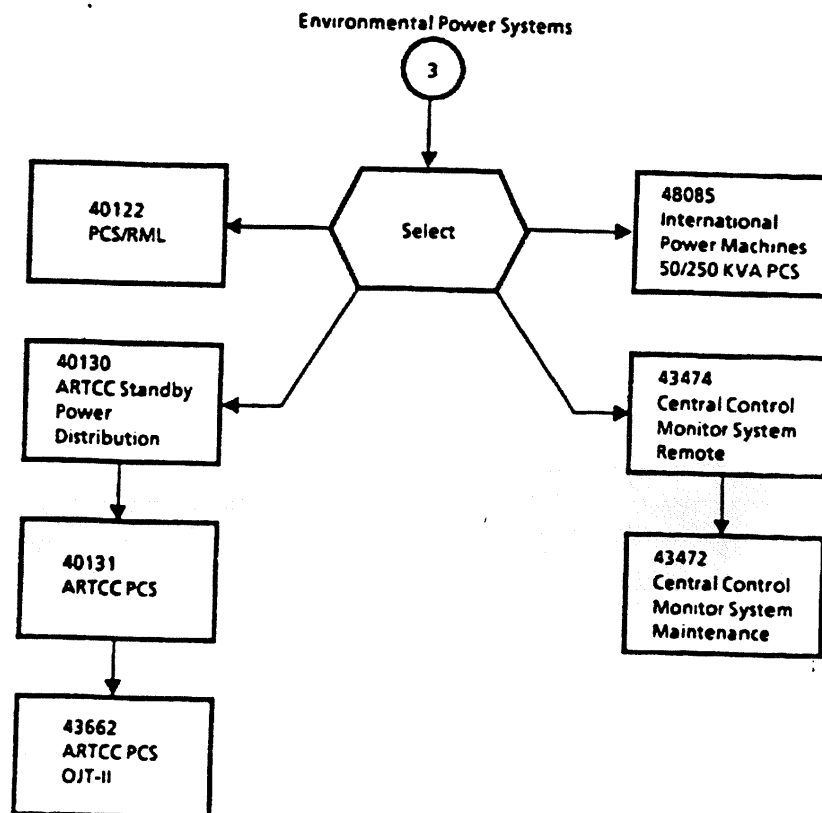
FIGURE 24. TRAINING PROGRESSION CHART
ENVIRONMENTAL SPECIALIST (CONTINUED FROM FIGURE 23)



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FIGURE 25. TRAINING PROGRESSION CHART
ENVIRONMENTAL SPECIALIST (CONTINUED FROM FIGURE 23)



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★ FIGURE 26. TRAINING PROGRESSION CHART
ENVIRONMENTAL SPECIALIST (CONTINUED FROM FIGURE 23)

